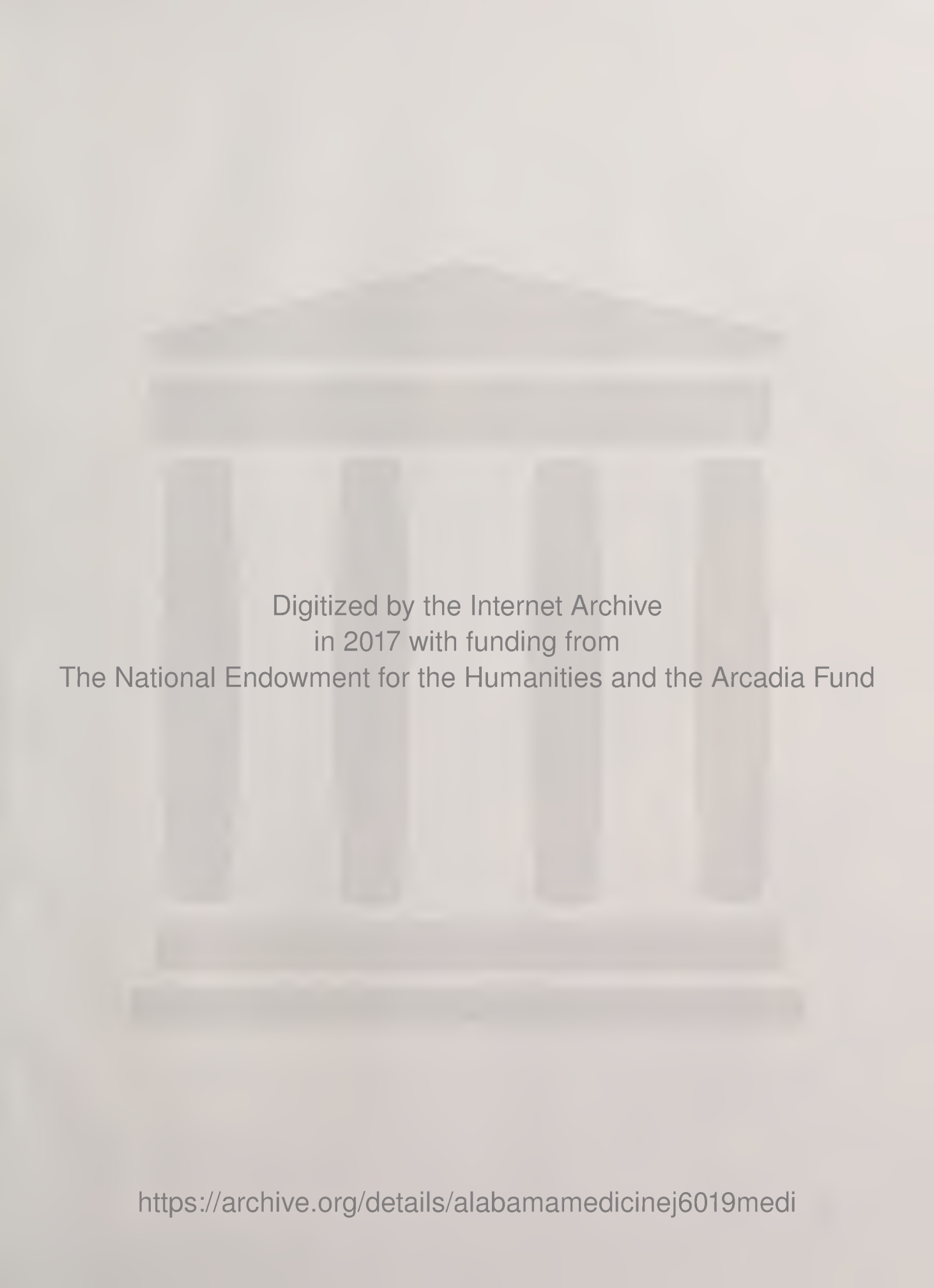

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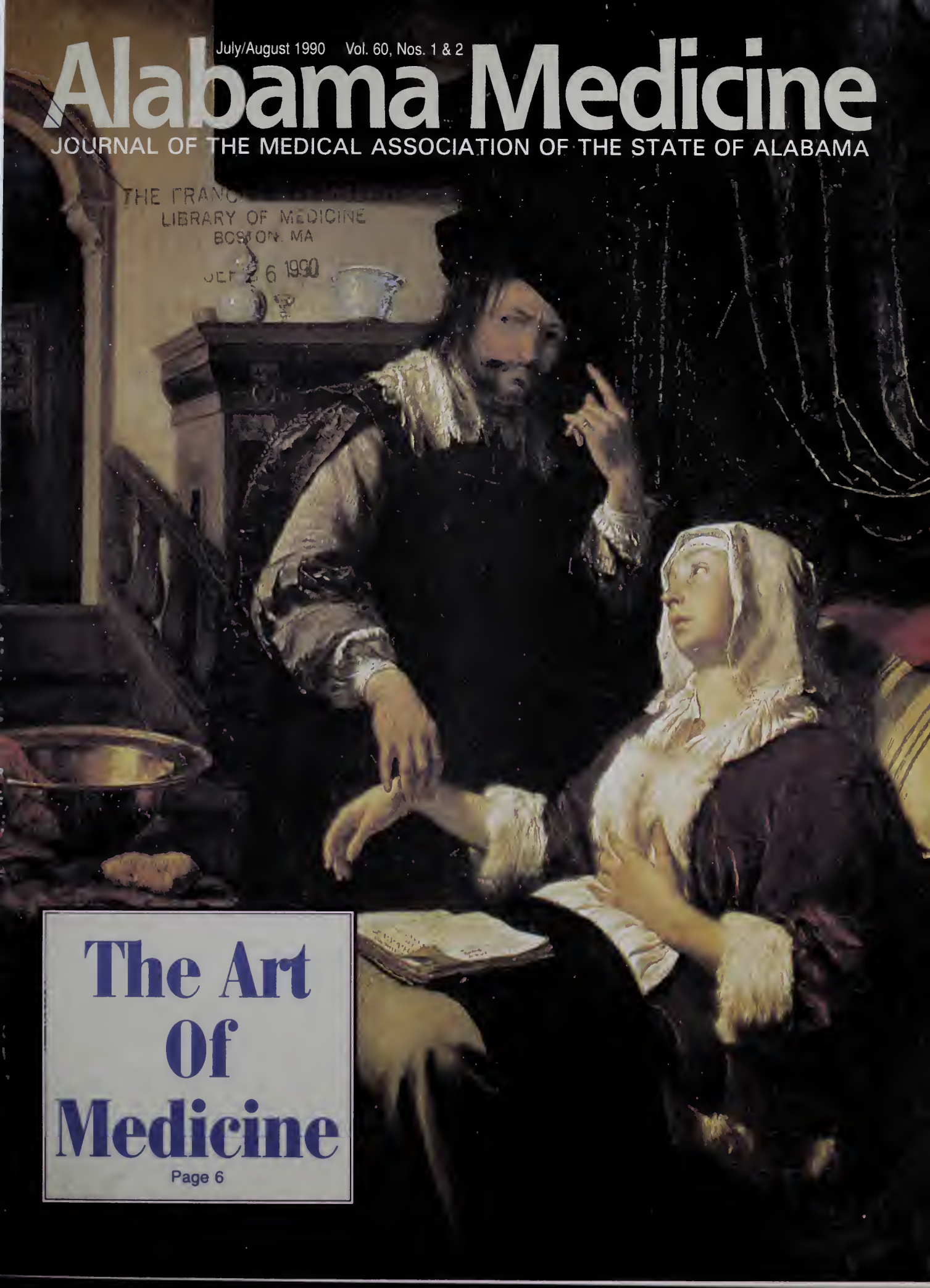

The Art Of Medicine

Page 6

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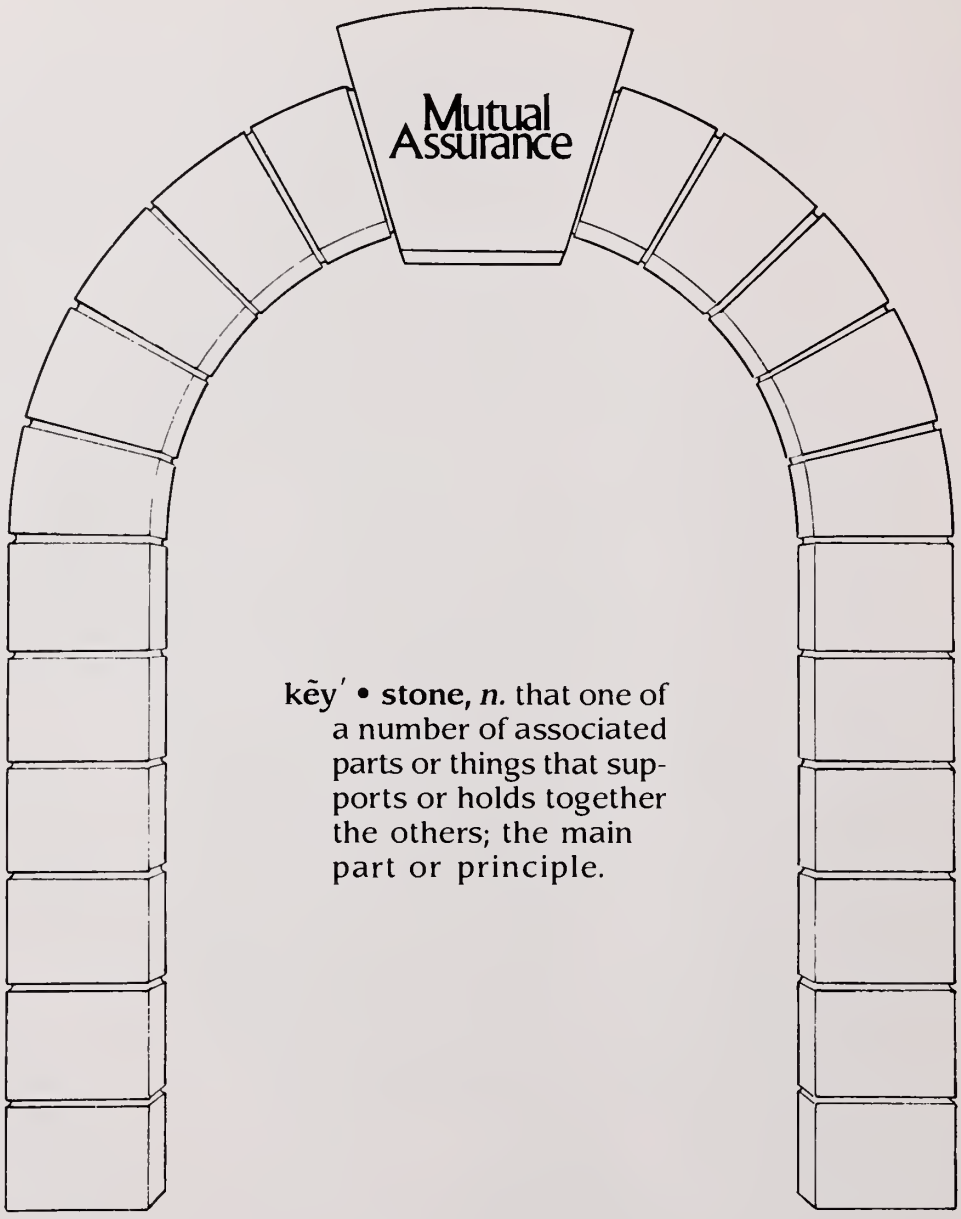

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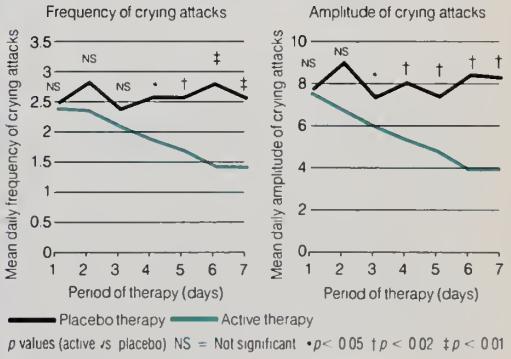

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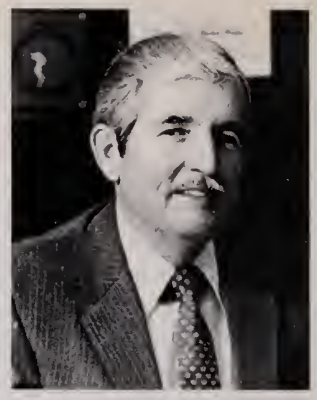

S. Lon Conner
Executive Director, MASA

A Closer Look

Now that some of the commotion over abortion has subsided, although the debate continues, it is possible to reflect on one important element of *Roe Vs. Wade* that is generally overlooked, even by those most affected, physicians.

I am indebted to a *JAMA* article earlier in the year (*JAMA*, Feb. 9, pp 858-861) by three attorneys (with MPH degrees as well) writing under the aegis of the Boston University Schools of Medicine and Public Health.

I am also indebted to Editor J.l. Frederick Reppun, M.D., of the *Hawaii Medical Journal* who reminded his physician readers of the *JAMA* article and its crucial relevance to the physician-patient relationship (*Hawaii Medical Journal*. Vol. 49, No. 6, June 1990 p. 181).

The *JAMA* authors wrote:

"The Supreme Court's decision in *Roe v Wade* is best known for its conclusion that the constitutional right of privacy protects from state interference a woman's decision whether to terminate a pregnancy...Yet, a central focus of *Roe* is the nature of the doctor-patient relationship and the degree of protection that the doctor-patient relationship deserves from state interference...*Roe*...recognize[s] that the interests of the doctor and patient are usually the same and that the state should seldom be permitted to interfere with their joint decisions to perform standard medical procedures."

The authors went on to demonstrate that in arguing for repeal of *Roe*, anti-abortion forces would wreak far more havoc than they perhaps realize to fundamental rights of privacy everyone has in all medical matters:

"*Roe v Wade* has correctly been seen primarily as a women's rights case because it protects women's right to decide whether to continue a pregnancy. But *Roe* is also a physicians' right case, because the right of privacy that protects a woman's right to decide is the only constitutional principle the Supreme Court has recognized that protects a physician's right to exercise medical judgment...But *Roe* does not advocate abortion... No one is required either to have an abortion or to perform one...Those who seek to overrule *Roe* are fundamentally arguing for state control of what can and cannot be done and said by physicians. And they would prefer to control physicians not indirectly, by financial incentives, but directly, with criminal penalties...Physicians and patients have a unity of interest in defending and promoting the right of privacy that protects decision- making in the doctor-patient relationship from irruptive interference by the state."

As it happens, this meshes precisely with the policy position of MASA all along. The fundamental, historic rights of patients and physicians to freedom from state interference transcends the volatile symbol that *Roe* has become.

What some states have done, in hastily passed anti-abortion legislation, unknowingly perhaps, is to jeopardize the sanctity of the doctor-patient relationship. Once that sanctuary is breached, other pressure groups may have entirely different and more destructive ideas for telling physicians and patients what medical decisions they may and may not jointly undertake.

And that is the central danger in some of the reckless state attempts to overturn the constitutional protections enunciated in *Roe*. ❑

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References

1. USP DI Update, September/October 1988, p 120.
2. Br J Clin Pharmacol 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. Scand J Gastroenterol 1987;22(suppl 136):61-70.
5. Am J Gastroenterol 1989;84:769-774.

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3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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T. Riley Lumpkin, M.D.
President, MASA

The Art Of Medicine

For some time, I have looked for an opportunity to write about the art of medicine. In my view, the art of medicine is still of great importance to the medical profession, to the individual physician, and to patients, just as it has been since the beginning of the profession.

Unfortunately, practice of the art of medicine seems to be diminishing as the profession becomes ever more devoted to the science of medicine. Obviously, modern medicine could not exist without science. Even so, science cannot serve as the sole basis for the effective practice of medicine. Patients bring many ills to their physicians for which science has few answers. The physician who aspires to be a healer, rather than merely a service provider, must go beyond science if he or she is to meet that goal.

What exactly do I mean by this distinction between science and art? Science relies on what can be proven and documented. Art is based on experience, study, or observation. It is a skill or dexterity in the adaptation of things in the natural world to the uses of human life – a human contrivance or ingenuity. Thus, science tends toward that which can be replicated reliably while art tends toward the unique, particular solution to the unique, particular problem. Medical science deals with certainty; medical art with uncertainty.

Our culture tends to value science over art. We want to substitute certainty for uncertainty whenever possible. Unfortunately, this wish often blinds both patient and physician to the reality that a great deal of medicine is not at all certain. In spite of that, medicine is often practiced as a kind of wish fulfillment: if I portray certainty well enough, then the patient and I will experience a reassuring sense of control. Confronted by a concerted display of certainty, the patient's and the physician's uneasiness recedes until something unexpected happens.

It is in the face of the unexpected that the physician must call upon art in addition to science. Through the years, each of us has observed humans in distress and has developed methods of making things work better. We have improved patients' understandings of their situations and, often, their health outcomes. The combination of artful and scientific skills is implied by the two terms most commonly used for a medical practitioner: doctor and physician. Doctor comes from the Latin and means "teacher." Physician refers to one skilled in the art of healing, who exerts a remedial or salutary influence. Both science and art are essential components of the healing arts.

Particularly important to remember is the fact that the art of medicine has been, in many ways, more consistent than the science of medicine. Every physician that has given advice and comfort in the past, from the early shaman, barber/surgeon, or cave-dwelling medicine man to the scientifically sophisticated, well-trained physician of today has used the findings of those who preceded him in an attempt to improve the treatment of the patient. As the treatments of yesterday are proven less efficacious than we thought, they fall to today's wisdom. That, in turn, will succumb to

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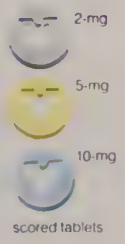

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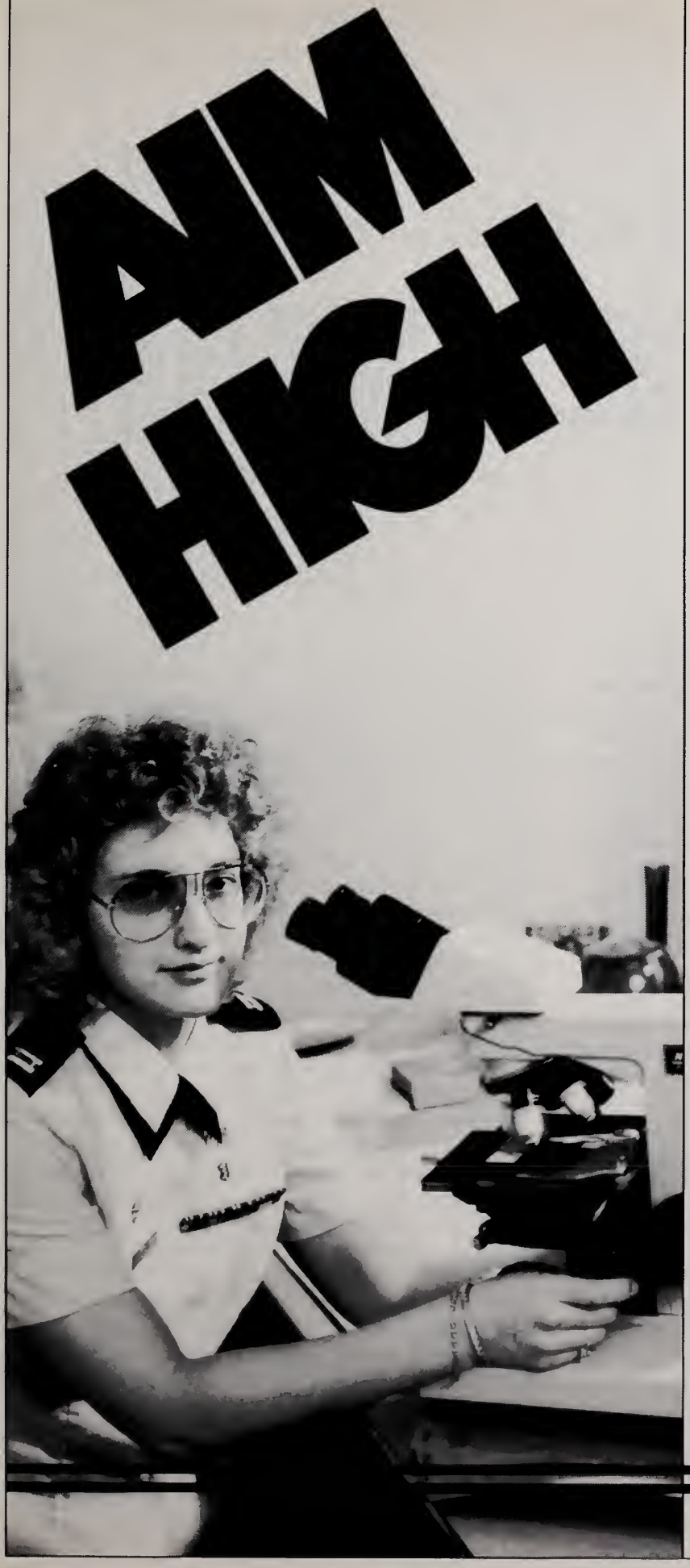
Authorities tell us that the knowledge base of medicine doubles every eight years and every five years, we need to reduce that number by another year. We are continually amazed by the speed of changes in medical technology, pharmacology, and diagnosis. Remember the struggle to diagnose thyroid disease with such lab tests as thymol turbidity and basilar metabolic rate (BMR)? Do you recall the master two-step test for cardiac stress evaluation? What about the pneumoencephalogram, that outlined the ventricles with air (a very painful procedure). All of these have been replaced with more technologically advanced procedures, for greater safety and comfort for the patient.

Scientific medicine floods us with new medicines and new technologies every day. Lasers open closed arteries. Magnetic resonance imaging clearly shows the brain and its consolidated components. These tools enable American scientific medicine to provide patients with the most up-to-date, sophisticated care in the world. We expend more of our Gross National Product to do this than any other country on earth. One would expect that Americans would enjoy the best health in the world, if science and technology alone could deliver it. The fact that we lag behind many other developed countries on such major health indicators as life span and infant mortality suggests that there is more to health than technology.

What do physicians and other health-care providers in countries with less sophisticated technology, but healthier citizens have to offer that makes the difference in health outcome? It is likely to be art, not science. It is likely to be the physician who knows the patient in his context as an individual, as a family member, and as a community member. It is likely to be the physician who knows enough of the person's trials, satisfactions, health hazards, and medical problems to provide a healing environment that goes beyond technology. This physician provides the psychological cushion that is needed, along with the latest in lab tests or the ideal antibiotic.

Art is needed in all aspects of medicine. Good, sound, understandable patient education is essential for the patient and family trying to decide whether to use the latest in exciting technologies. A bereaved family's need for quiet support by word and deed from their physician never goes out of style. Patients need the personal involvement of their physician of each and every visit, so that they can be assured of the physician's concern for their interests. Through consistent listening and exploration of their viewpoints, you will know, not only which medications to use, but what to tell them about their conditions, prognoses, complications, and care. Through your own humanity, you will know theirs. Through practice of the art of medicine, healing may reach not only the patient, but the family, the physician, the community, and the nation. ❑



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Extradural Spinal Cord Compression From Metastatic Tumor

*Robert Y. Kim, M.D.**

Extradural spinal cord compression (ESCC) as a consequence of metastasis from various primary cancers represents the most common type of malignant lesion affecting the spinal cord. It has been estimated that 5% of all patients with systemic cancer who are autopsied have pathologic evidence of tumor invading the extradural space.[1] The incidence of ESCC is expected to increase due to improved survival of the cancer patient. The current approach to the diagnosis of ESCC depends upon the recognition of early symptoms and signs of spinal cord compression. Despite the increasing clinical awareness of these complications, irreversible loss of ambulation continues to occur in over half of these patients. Early diagnosis is critical since onset of spinal cord injury may be sudden, often progressing to irreversible paralysis in a period of hours. Consequently, physicians dealing with cancer patients must maintain a high index of suspicion. This paper analyzes prognostic factors based on our prospective study and emphasize the use of diagnostic tests in early recognition of ESCC before onset of neurologic deficits.

MATERIALS AND METHODS

Between April of 1987 and December of 1989, 103 patients with ESCC were treated with radiation at the University of Alabama at Birmingham. This report concerns the first 65 patients (43 male, 22 female, median age 63.5 years, range 18-87) between April 1987 and December 1988. Detailed information regarding signs and symptoms were entered in an initial evaluation form. Six of these patients were excluded from analysis due to death during treatment.

During the study period, the treatment policy of ESCC at UAB was initiation of emergency radiation therapy except in patients without a diagnosis of cancer or who had received previous radiation treatment to the spinal cord. In patients with progressive ESCC during radiation treatment, surgical intervention provides immediate decompression. When a clinical diagnosis was established, the patient initially received a high dose of Dexamethasone and then tapered during the rest of the radiation treatment program.

Diagnosis of ESCC was confirmed by myelography, CT myelography or MR scan. When the location of the ESCC was established, radiation treatment was started immediately at the site of the compression encompassing one or two vertebral bodies above and below it. All patients were treated with an 18 MEV or 25 MEV linear accelerator using opposing fields. Thirty-two patients received 3000 cGy in 10 fractions, 14 completed 3000 cGy in 9 fractions with three initial high dose fractions of 400 cGy, five patients completed 2000 cGy in 5 fractions, and three patients received 3000 cGy in 15 fractions. Of six patients who underwent decompression lalminectomy, 3 patients had laminectomies prior to treatment and 3 patients underwent laminectomy during radiation treatment due to progression of symptoms.

At the initiation of treatment, the patients were

*Department of Radiation Oncology, Comprehensive C Center, University of Alabama at Birmingham, Birmingham, Alabama 35233, (205) 934-2760. Reprint requests to Robert Y. Kim, M.D. Presented at the Sixth Invitational Scientific Symposium, January 1990.

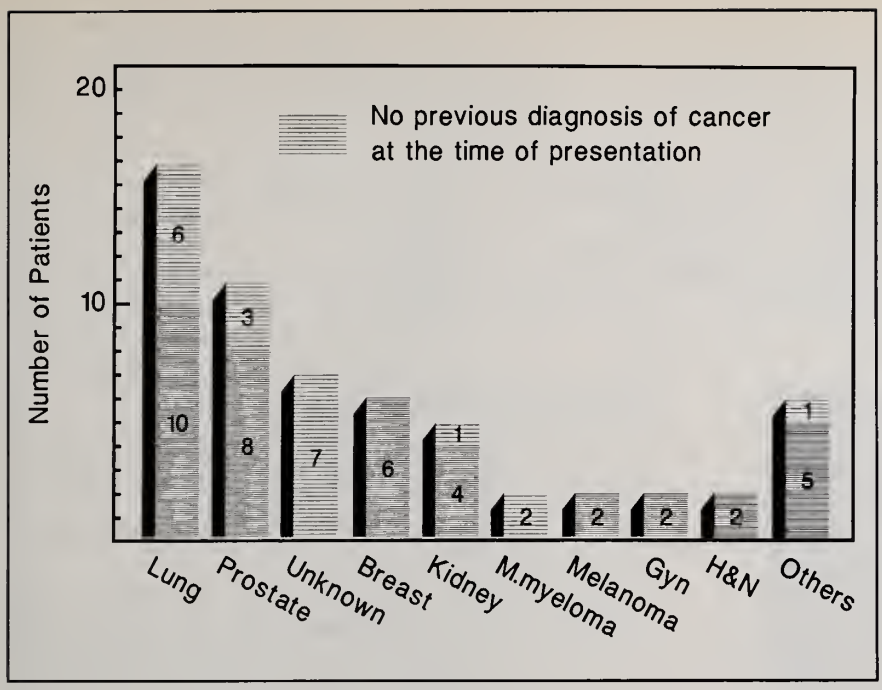

Figure 1. Distribution of primary tumors

TABLE 1

Effect Of Spinal Cord BLock On Motor Function

Motor Function	Total	Degree Of Spinal Cord Block		
(Grade)	No.	P (%)	AC (%)	C (%)
I	5	3 (60.0)	0 (0)	2 (40.0)
II	8	5 (62.5)	0 (0)	3 (37.5)
III	13	5 (38.5)	2 (15.4)	6 (46.2)
IV	18	2 (11.0)	3 (16.7)	13 (72.2)
V	15	0 (0)	2 (13.2)	13 (86.7)

P – Partial Block, AC – Almost Complete Block, C – Complete Block

TABLE 2

Effect Of Pretreatment Motor Function On Functional Prognosis

PRE-TREATMENT		POST-TREATMENT	
MOTOR FUNCTION	Total	AMBULATION (I, II)	
(GRADE)	No.	NO	(%)
Ambulatory (I, II)	13	13)	100.0
Non-ambulatory (III, IV)	31	11	35.5
Paraplegic (V)	15	1	6.7

divided into 5 categories, based upon motor function; grade I - normal motor function; grade II - weak but ambulatory; grade III - non-ambulatory but resisting gravity; grade IV - non-ambulatory and unable to resist gravity; and grade V - paraplegia. The success of treatment based on motor function was assessed at the end of the radiation treatment, one month and 6 months after treatment.

RESULTS

The most common initial presenting signs and symptoms were: neck or back pain, 85% (50/59); motor weakness, 12% (7/59); and sphincter dysfunction, 3% (2/59). The average duration of pain prior to diagnosis of ESCC was six weeks.

The most common diagnostic tests were CT combined with myelogram (33) followed by myelogram only (18), MRI only (4) and CT combined with myelogram and MRI (2).

PRIMARY TUMORS

Figure 1 shows the distribution of primary tumors. The most common primary tumor was lung cancer (27%) followed by prostate cancer (19%), unknown primary cancer (12%), breast cancer, (10%) and kidney cancer, (8%). Twenty patients (34.0%) had no previous history of cancer at the time of presentation of ESCC; six patients were found to have lung cancer, three prostate cancer, two multiple myeloma, one kidney cancer, one lymphoma, one leukemia and six unknown primary cancers. Both multiple myeloma patients presented with extradural spinal cord compression as the first evidence of disease.

The most frequent sites of spinal cord compression were thoracic spine in 43 patients (72.9%), followed by lumbosacral spine in 14 patients (23.7%) and cervical spine in two patients (3.4%). Seven patients with lung cancer had direct extension to extradural space at the level of thoracic spine.

TABLE 3
Analysis of Prognostic Factors on Ambulation

Function	Univariate Analysis P Value	Multivariate Analysis P Value
Pretreatment Motor Function	0.001	0.0058
Degree of Spinal Cord Block	0.009	0.3674
Radiosensitivity of Tumor	0.048	0.0710
Radiation Dose Schedule	NS	———

NS = Not Significant

TABLE 4
Indication For Surgical Treatment of ESCC

Histopathology is unknown
Neurologic deterioration during irradiation
Previous irradiation to the spine
Known radioresistant tumor
Spinal instability due to vertebral compression

RELATIONSHIP BETWEEN THE DEGREE OF MOTOR FUNCTION AND SPINAL CORD BLOCK

Seventy-eight percent (46/59) of patients had non-ambulatory status upon presentation. The degrees of spinal cord blocks are defined as follows: partial block (P) is less than 50% block; almost complete block (AC) is more than 50% block; and complete block (C) is no dye beyond the block. Table 1 shows the degree of motor function at presentation and the degree of spinal cord block by myelogram or MRI scan. The degree of spinal cord block and motor impairment correlate well (P< 0.001).

PRETREATMENT MOTOR FUNCTION ON FUNCTIONAL PROGNOSIS

Since the principle aim of ESCC therapy is to improve quality of life, we considered ambulation to be an indicator of success of radiation treatment. Table 2 shows pretreatment motor level and post-treatment ambulatory status. The pre-treatment motor function and post-treatment ambulation correlate well (P< 0.001). All patients (13/13) with grade I and II motor function (ambulatory) remained ambulatory. 35.5% (11/31) with grade III and IV motor function (non-ambulatory) were able to walk after treatment. However, only 6.7% (1/15) with level V motor function (paraplegia) was able to walk after treatment.

DEGREE OF SPINAL CORD BLOCK ON FUNCTIONAL PROGNOSIS

Ambulation rate in patients with partial, almost complete and complete spinal cord block was 53.3% (8/15), 28.6% (2/7) and 15.6% (5/32) respectively (P< 0.009) .

RADIOSENSITIVITY ON FUNCTIONAL PROGNOSIS

The improvement of motor function in patients with breast cancer and lung cancer was 66.7% (4/6) and 37.5.% (6/16), respectively. However, the improvement of motor function in patients with prostate cancer and kidney cancer was 14.3% (2/11) and 20% (1/5) respectively. Improvement occurred in 40.7% (11/27) of those patients with primary tumors considered to be more sensitive to radiation (breast cancer, lung cancer, multiple myeloma and lymphoma) while those with primaries considered to be less sensitive to radiation (liver cancer, kidney cancer, prostate cancer, malignant melanoma and sarcoma) improvement occurred in only 14.3% (3/21) (P=0.048).

TREATMENT DOSE SCHEDULES ON FUNCTIONAL PROGNOSIS

No significant difference in the improvement of the motor function was observed between 3000 cGy in 10 fractions (31.3%) and 3000 cGy in 9 fractions with higher initial dose fractionation (28.6%). The number of patients with other dose schedules is too small to make a meaningful comparison.

ANALYSIS OF PROGNOSTIC FACTORS

In the univariate analysis, pretreatment motor func-

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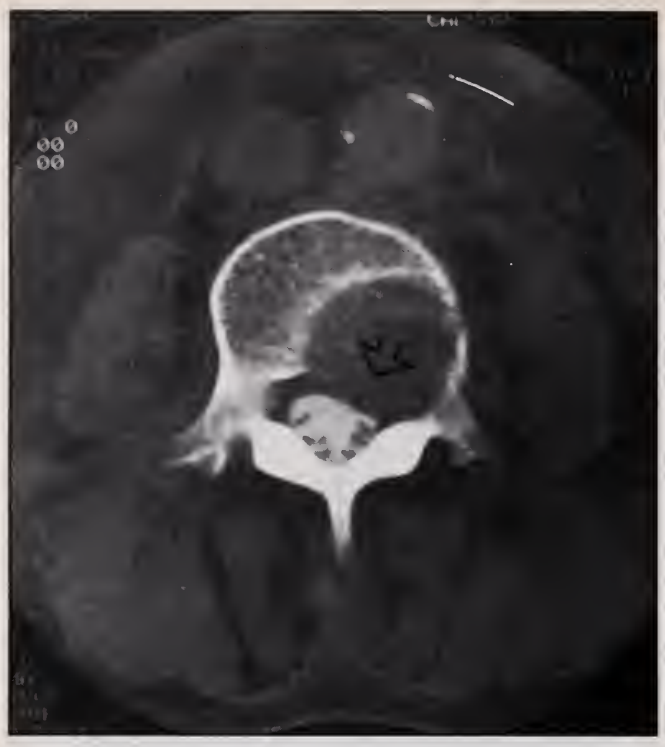

Figure 2. CT myelography. Destruction of vertebral body with cortical disruption (arrow) and contiguous extradural spinal cord compression.

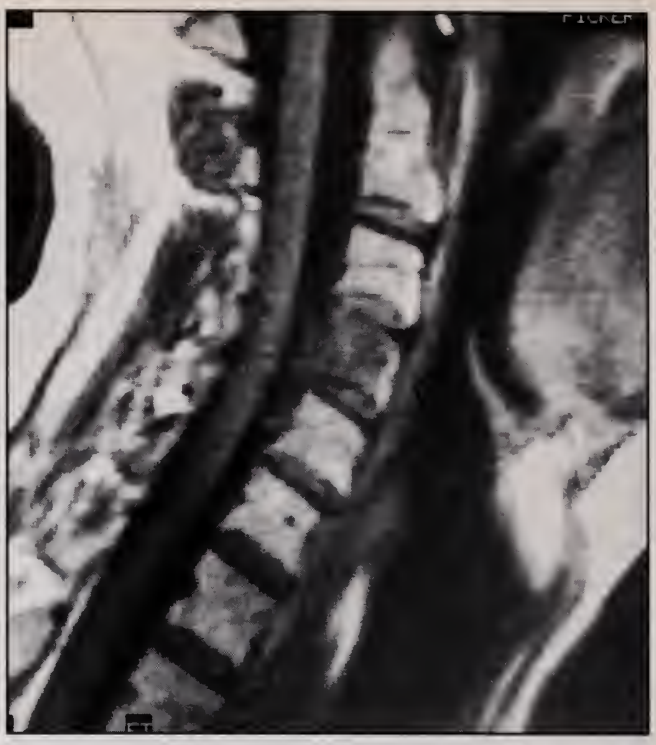

Figure 3. Sagital MRI scan. C4 with low signal (arrow) and contiguous extradural mass

tion, degree of spinal cord block, and radiosensitivity of tumor were noted to be significant factors in determining improvement of motor function. However in multivariate analysis, only pretreatment motor function remained statistically significant (P=0.0058) (Table 3). Degree of spinal cord block and radiosensitivity of tumor were not significant independent factors after adjustment for other factors.

MEDIAN SURVIVAL

The survival was also measured, although not a major end point of this trial. Median survival in ambulatory patients was 3.63 months, and non-ambulatory patients was 1.79 months.

DISCUSSION

The optimal treatment of extradural spinal cord compression remains controversial. Posterior laminectomy was the treatment of choice in the past. In the late 1970's, several retrospective studies[2,3] and one prospective randomized study[4] suggested that radiation therapy was effective with low morbidity and it became standard treatment for most patients. Emergency laminectomy is usually reserved for patients who show neurologic progression despite irradiation. Most clinicians agree that, except in special circumstances, the treatment outcome is not dependent on therapy selection. Surgical intervention is limited to special circumstances that are identified in Table 4. Among the many variables, pretreatment motor function, degree of spinal cord block, and radiosensitivity of tumor appeared to correlate well with functional outcome. However, in multivariate analysis, only pretreatment motor function remained a significant factor determining improvement of motor function in this series. Therefore, early detection of ESCC is critical.

Localized back pain is the first symptom in majority of patients with ESCC.[5,6] As the epidural lesion progressed, the spinal nerve root is compressed, causing a radicular pain. Further progression of the epidural mass leads to compression of the dura with ischemia of the underlying neural tissue producing a myelopathy. Bone destruction is also frequently associated with ESCC. Spine radiographs and/or bone scan has been used to evaluate bony pain. Bone scans are highly sensitive for detecting most metastatic lesions, but have a high incidence of false positivity and do not define the anatomic extent of destruction. Conversely, spine radiographs have low sensitivity in detecting bony metastases but show more detail anatomical extent of involvement. Grans et. al.[7] correlated the degree of bone radiographic abnormalities with the likelihood of epidural disease. Epidural tumor occurred in 87% of patients with major vertebral body collapse, in 31% of those with pedicel erosion and no major collapse and in only 7% with metastases restricted to the vertebral body without

collapse. Furthermore, the CT scan of the spine provides detailed anatomic definition of a vertebral and paravertebral mass lesions and is more specific than bone scans or plain x-rays delineating the metastatic disease. Weissman et. al.[8] demonstrated the usefulness of spinal CT scans in early detection of epidural tumors. Seventy-eight percent of cortical disruption as demonstrated by spinal CT had tumor extension into the adjacent epidural space compared with 11% without cortical disruption (figure 2). MRI scan has also been shown to be a sensitive method of detecting area of malignancy within the bone marrow by low signal intensity[9] (Figure 3).

If there is a suspicion of extradural spinal cord compression, complete myelography has been a "gold standard" in the evaluation of possible cord compression by providing an indirect image of the spinal cord and nerve roots. In addition, myelography in conjunction with the CT provides a second imaging plane to increase the specificity of abnormal findings. MRI combines the best of both moralities with few of the disadvantages[10]. Many early reports commented on its ability to image the spinal cord in multiple planes and thus accurately pinpoint neoplastic disease without the use of intrathecal contrast material or ionizing radiation. In this series, CT combined with myelography was the most common diagnostic test. However, the use of MRI scan has increased recently at our institution. The choice of MRI or myelography should be based upon availability, imaging time, and quality of the procedure at a given institution, as well as the ability of a patient to remain still.

Until recently, several prospective studies have demonstrated that ESCC can be detected in majority of patients before the onset of neurologic deficits. Rodichok et.al.[11] reported in a prospective study that in patients with back pain and bony destruction on spine radiograph, 91% of patients with myelopathy or radiculopathy were found to have ESCC, and 74% of patients with normal neurologic findings had ESCC. They demonstrated that the usefulness of plain spine radiograph for early detection of this problem. O'Rourke et al.[12] emphasized the importance of CT findings to detect early spinal cord compression.They found that the presence of cortical disruption around the neural canal was highly associated with epidural compression. They recommended that those with cortical disruption undergo CT myelography to confirm ESCC.

CONCLUSION

Even with the increasing clinical awareness of ESCC, 78% of all the patients in the current series presented with non-ambulatory status. The best hope for favorable outcome lies in early and accurate diagnosis of epidural tumor in patients with minimal or no neurologic deficits. The use of spine radiographs and CT scan can facilitate early diagnosis in the majority of patients before onset of neurologic symptoms. Local radiation treatment is recommended for patients with back pain and bony destruction of spine until proven otherwise with CT myelography or MRI scan. ❑

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Huntingtons Disease

*Fritz A. LaCour, Jr., M.D.**

HISTORY

The history of Huntington's Disease (HD) is closely linked to that of chorea ... a word derived from the Latin choreus alluding to dancing and the Greek choros meaning 'chorus'. The term could be first applied to the "epidemic of the dancing mania" that began in Aix-la-Chapelle on the Franco-German border in 1374. Hecker's historical review vividly describes how victims "formed circles hand-in-hand, appearing to have lost all control over their senses and continuing to dance, regardless of bystanders, for hours together in wild delirium, until at length they fell to the ground in a state of exhaustion ... While dancing they neither saw nor heard but were haunted by visions, their fancies conjuring up spirits whose names they shrieked out." It quickly spread to Belgium, France, Netherlands, Italy, and Germany where it became known as St. Vitus chorea. This phenomenon was felt to represent a hysterical reaction following the epidemic of plague which ravaged 25% of Europe

The term chorea was introduced to medical literature by Paracelsus in the 16th century who divided its causes into imaginary, organic and those resulting from "sensual desires." He was first to suggest an organic basis.

Sydenham made his contribution through his observations and description during the 17th century of what is called rheumatic chorea today and which still bears his name. He created a confusing situation when he erroneously adopted the name St. Vitus dance which referred to the dancing mania, a situation which continued until it became generally accepted that cretain forms of chorea were inherited.

Huntington's cases originated from the gene pool of three men who emigrated from Bures, England and arrived in this country at Salem with John Winthrop's group in 1630. By strange coincidence, an ancestor of George Huntington – Simon Huntington of Norwich, fifty miles from Bures – emigrated to America three years later. The stage was set and characters in place for what eventually came to pass some distance south on Long Island, one hundred and two years later.

George Huntington observed his first case at age eight while riding with his father on professional rounds. He made the first accepted observation of genetically determined disease while practicing in East Hampton, Long Island, N.Y. These observations were facilitated by the careful records of families treated by his physician grandfather and father before him. After graduating from Columbia University at age 21, he presented his paper "On Chorea" to the Meigs and Mason Academy of Medicine in Middleport, Ohio. The text of the lecture appeared in the Medical and Surgical Reporter of Philadelphia on 13 April, 1872.[1]

Epidemiology:

HD is ubiquitous. It is more common in occidentals with a prevalence rate of between *30-70/million*. It is only 0.6/million in African blacks, 15/million in American blacks and 3.8/million in Japan. These differences are consistent with the theory of gene origin in north-western Europe.

Areas of high prevalence:

Location	Rate	#pts	Pop. Size
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Moray Firth, Scotland	5,600	5	896
North Sweden	1,440	18	12,500
Mauritiu So. Africa	460	16	13,000
Tasmania, Australia	174	105	60,344

The incidence among whites is 2.59 and blacks is 0.94/million in the United States.

Epidemiological figures depend on diagnostic accuracy and the above figures will change as local interest in the disease and expertise in making the diagnosis increase. The definitive diagnosis is a clinical one and depends on the definitive diagnosis is a clinical one and depends on the following features:[2]

1) A positive family history of typical Huntington's chorea consistent with a autosomal dominant inheritance with 100% penetrance.
2) Progressive voluntary movement disorder, w/wo chorea, insidious in onset, not present at birth, and of no other obvious cause.
3) Psychiatric disturbance, usually comprising progressive dementia of no other obvious cause.[3]

When patients with HD are given other diagnoses (false negative rate 11%) it is usually because of an inadequate family history. This is usually due to premature death of an effected parent including suicide or death after confinement in a mental institution. The diagnosis can be problematic when the movement disorder is mild and there is a history of injury, psychiatric symptoms or evidence of alcohol abuse. The later two can be difficult because of the high incidence of positive family history with these diseases. Knowledge of clinical disease is required to separate these causes out. *Close review of the*

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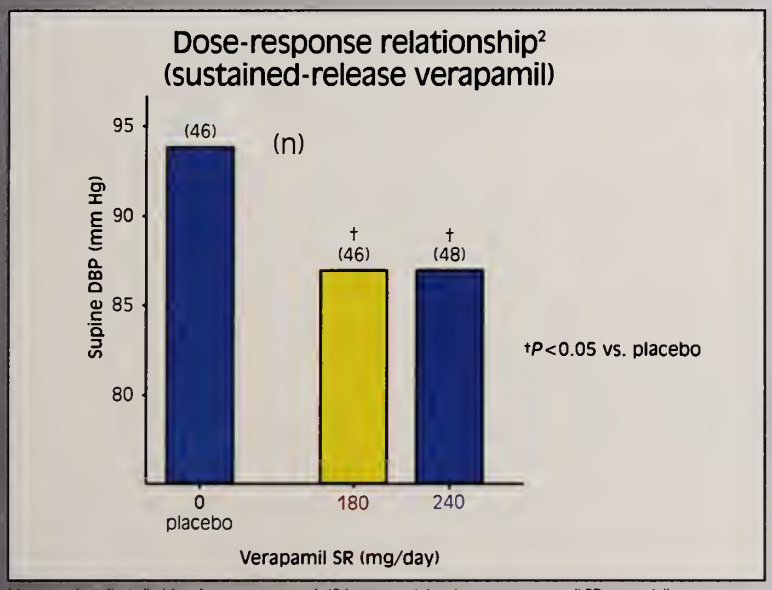

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BRIEF SUMMARY

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Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

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family history and examination of an effected family member will resolve the issue in every case.

When patients are misdiagnosed as having HD disease (false positive rate 15%) the positive family history is lacking in every case and the clinical features will distinguish them. Common problems are familial Alzheimers's disease, Friedreich's ataxia, familial dystonias, psychiatric disease with tardive dyskinesia, alcoholism and stroke.

There will always be a few (5%) patients who cannot be diagnosed because of:

1) Negative or inadequate family history in spite of typical clinical features.
2) Inadequate family history and atypical clinical features consistent with the diagnosis of HD (late age of onset, prominent rigidity, absence of dementia, injury or complicating medical condition).

Of these approximately 10% will be found to have neuropathological features consistent with HD at autopsy. In these verified cases and those clinically typical without family history, the common problem is:

1 – Nonpaternity due to illegitimacy or adoption.
2– Misdiagnosis of Parkinsonism, MS, schizophrinia, senility or alcoholism in an genueinly effected family member.
3 – Death of parent during presymptomatic phase of illness.

Autopsy should be performed on some member of all atypically affected families and in all typical cases with negative family history. When diagnostic difficulty persists, the clinician may choose a deliberate policy of procrastination and use time to observe the progress of the disorder in the patient and family. This is not a delaying tactic but is a reflection of the need for diagnostic accuracy given the tremendous implications of misdiagnosis.[1] The problem of clinical variability in HD further underscores the importance of family history.[2,3,18,35]

Again, the diagnosis of HD is most difficulty when movement disorder, is mild and accompanied by psychiatric symptoms, a history of injury or evidence of alcohol abuse. *Investigation of the family history will clarify the diagnosis.*

Family history is made difficult because the patient may be unaware of other affected members, may withhold information or may not understand because of dementia. An older unaffected sib or aunt is usually the best informant and may remember back three generations identifying someone with "St. Vitus' dance," suicide, or "bad nerves". Adult children are the most available but the least reliable. They are often uninformed because the family illness has been kept secret. Telephone calls to elderly family members and searches in the medical records of potentially affected family members, living or dead, may turn up important information.

Without family history the diagnosis is at best only probable and requires classical clinical features of chorea, abnormalities of eye movements, fine motor movements, and gait. The diagnosis can only be made definitively in this setting, *with all its genetic implications,* when there is autopsy confirmation on clinical follow-up of children with positive results.[1,2,3,7,8,12,18]

In 1969, Stevens and Parsonage suggested four criteria for the designation of a case as a new mutation.[19]

1– Disease must have the three cardinal features of HD
2– Both parents must live to age 70
3– Sufficient info to know they were disease–free
4– Patient must be their offspring

There is no case of suspected mutation to fulfill these criteria.[2,4,5,6,20] *Phenocopy does not insure genocopy.*[18]

Natural History:

The disease is insidious with mean onset ages ranging from 35 to 42 years. The mean onset age in a New England series of 243 patients was 41 years.[7] 6% of cases begin before the age of 20 and 3% before the age of 15. Dramatic differences can occur in the same kindred, but this alone does not disprove that all cases result from the same genetic anomaly. In 14 sets of MZ twins the age of onset was within one year. In DZ twins the range is one to seven years with a mean of 4 years.[7]

In almost every case of the juvenile form the presenting symptom is a disturbance in locomotion due to rigidity. Chorea is rare.[9] Dyslalia, myoclonic and dystonic movements, seizures (50%) and cerebellar signs (50%) make up the bulk of other motor abnormalities.[7] The latter two findings are very unusual in the adult form. Intellectual deterioration, school problems, personality change including antisocial and self-destructive behavior, anxiety and frank psychosis (5%) are less common but are occasionally presenting features.[9,10] The diagnosis is made more difficult when clinical disease does not appear until later in the affected parent. Paternal transmission is four times greater in juvenile cases.[7] The course of the illness is rapid in children ending with progressive dementia, rigidity, seizures, and death at a mean of 8 years from onset.[9] This rigid form of adult and juvenile disease is referred to as the *Westphal* variant.[11]

In the adult form of the disease, symetric chores is the predominant finding but may be quite subtle. The handshake may be unsteady, too firm, and too quickly released. There may be difficulty holding pressure on the gas padal while driving. Rapid successive movements are impaired.[3] The chorea gradually becomes well developed as jerky purposeless movements, such as simultaneous or sequential flexion of the knee, trunk, bobbing of the head or pursing of the lips. Fleeting movements may include "piano playing" or flexion and extension of the fingers, a movement that is most prominent in patients while walking. Early or chorea is brought out during anxiety, and with increasing ease by progressively demanding motor or intellectual tasks. There is commonly the inability to maintain tongue protrusion or to sustain several simultaneous commands such as "tongue out, squeeze fingers, shut eyes." Intermittent pouting of the lips, or swallowing and gulping mannerisms may occur

and mimical apraxia may be seen and appreciated by watching the patient move the head in order to control eye movements. Defects in saccade generation may cause the patient to characteristically close the eyes while turning. The most striking change is likely to be a delay in side-to-side movement of the eyes to command. The optokinetic response will be blunted early and can be a helpful sign.[33, 34] There is no nystagmus.[12] When eye signs are present in patients with minimal chorea and predominately psychiatric symptoms, they are very powerful tools useful in distinguishing organic from functional disease.

As deterioration continues speech do not always correlate with bodily movements or mesh with a smooth flow of thought. Similar lurches and unpredictable jerks in performance can be noted in the handwriting: a major reproducible abnormality. As the script becomes irregular, the syntax becomes incomplete and full of darts or gaps rather than a smooth flow of ideas and language.

Another characteristic motor symptom is the gait disorder. Initially it is manifest as difficulty with tandum walking, not because of ataxia but because of chorea. As chorea progresses it becomes more characteristically the "waltzing gait." Falls eventually become a major problem and many HD patients die from subdural hematomas.

As the disease progresses, rigidity outstrips chorea and the latter may only be seen during attempted movements, talking or anxiety. Ambulation becomes impossible. Reflexes become increased and by the tenth to fifteenth year of disease are accompanied by clonus (30%), positive plantar responses and eventually pelvicrural contraction.[12]

Cerebellar signs and sensory findings are not present except for the former as previously mentioned in the juvenile form of the disease.[3,12]

In the late onset variety, chorea does not develop until after age of 50. This presentation makes up 28% of all cases. All features of the disease are much milder any may last over twenty five years. Death is usually due to some other illness. Family history is commonly lacking in this group because of parallel late onset in ancestors who die of other causes in the presymptomatic years.[7]

Psychology:

The psychology of HD is varied from *apathy, lack of initiative and interest*, impaired concentration and judgment to anxiety, *irritability*, impulsiveness, sexual promiscuity/dormancy, sociopathic behavior and the profoundly bizarre. Reactive mood disorders are common and may result in violence, particularly in men leading to institutionalization. 25% have psychotic symptomatology resembling schizophrenia. The most common significant problem is depression occurring in 50% of cases. It often conforms to the DSM-111 criteria for major depression with frequent suicides. Personality changes and psychiatric symptoms are usually present early in the disease and precede that onset of motor signs in 30%.[13, 16] Many patients show high scores on the hypochondria, depression and schizophrenia scales of the MMPI but no pattern is specific.[15] No behavior type is specific for the disease nor is it essential for the diagnosis.[12]

Dementia:

Early, the dementia of HD is characterized by a short term memory (learning) disturbance when language is still normal. This may be difficult to detect on objective tests but would explain patient complaints of job difficulty or problems with home chores, grocery shopping and car pooling. Thought processes of all types are slowed, deteriorating with time, which may contribute to the memory disturbance. This creates a sense of generalized decrease in intellect. However, specific skills of language, praxis, gnosis, constructions and calculations are preserved until late and do not develop in a uniform pattern. Early, dysarthria and defects in conceptual judgment, planning, and organization of behavior may overemphasize the degree of dementia.[13, 14] This pentad; normal language, dysarthria, cognitive slowness, memory disturbance and motor signs is typical of many "subcortical dementias"[11] Even after patients are mute and mostly rigid, their actions and expression may convey that they comprehend well.[3] It is well established that whatever the level of cognitive defect, function is worse with significant superimposed depression and/or psychosis and that function and quality of life improve measurably with effective therapy.[15,16]

Neuropathology:

HD is characterized as a genetic disorder whereby there is programmed premature localized CNS nerve cell death greater from anterior to posterior and medial to lateral. Of the five types of neurones in the human striatum, it is the medium-sized spiny cell that is hardest hit. Although the striatum is most affected, many cells also die in the globes pallidus, layers 3, 4, and 5 of the occipital and fronto-temporal cortex, thalamic and subthalamic nuclei, brainstem nuclei (vagal and hypoglossal) and spinal cord. In the juvenile form, prominent atrophy in the cerebellum and dentate nucleus correlate with the increased incidence of ataxia and dysmetria (50%). These clinical and neuropathological features are notably absent in the adult form. In advanced cases (usually juvenile), the weight of the whole brain may decrease by 20-30%.[7,8]

As neuronal loss progresses, astroglial reaction increases in the striatum and to a lesser extent in the pallidum. Antibodies to glial fibrillary protein, demonstrate enlarged astroglial cells that stain densely in the striatum of all cases and also the pallidum in juvenile cases. This may offer some clue as to the reason for great rigidity in this latter form of the disease. Traditionally, the glial response has been thought to be a reaction to loss of nerve cells, however such a reaction may itself contribute to cell death and may not be simply a response to cell death.[7,8]

None of these microscopic features is specific as Lewey bodies, Pick bodies, Lafora bodies, Kuru plaques, senile

plaques, neurofibrillary tangles or granulovacular change may be. *Identical changes are present in other neurodegenerative diseases similar to HD and the distinction cannot always be made neuropathologically. It is the distribution of findings that is most helpful but not pathognemonic. HD shares with other causes of dementia, such as Alzheimer's, Creutzfeldt-Jacob and Pick's disease, the pathological characteristics of selectivity, progression, and clinico-pathologic variability.*[1]

A clinical-neuropathological correlation has been made by Vonsattel. Generally there is good correlation between degree of cell loss and clinical state, however 5/163 patients with positive family history and typical clinical features had *no neuropathology*. Chorea had been present in two of these cases for 5 to 10 years before death. This underscores the importance of family history for diagnosis and strongly suggests pathology lags behind clinical disease.[17]

Neurochemistry:

There are many changes in neurotransmitter levels in HD. A thorough discussion is given in reference #8 and is beyond the scope of this paper. It has been shown that aspiny medium sized neurones high in somatostatin located in the caudate and putamen of HD patients are spared by the annihilation process. Thus, cell death is selective both in terms of the regions of the brain affected and the cell type affected. In the presence of somatostatin, dopamine turnover and release are enhanced in experimental animals. These findings suggest that somatostatin may enhance in experimental animals. These findings suggest that somatostatin may enhance the action of dopamine in a system already depleted of acetylcholine favoring the hyperkinetic disorder, chorea.[7]

Differential Diagnosis:[1, 2, 8, 18, 32]

Five important causes of autosomal dominant chorea: *only HD with dementia.*

1–Huntington's chorea
2–Benign Hereditary chorea... (&AR) improves with age
3–Familial inverted choreoathetosis ..... legs
4–Familial paroxysmal choreoathetosis (&AR) .....Monk & Rebeck
5–Hereditary acanthocytosis syndrome (&AR) ..... smear abnormal

Familial diseases with tremor/chorea like movements:

1–Wilson's	(AR)
2–Olivopontocerebellar atrophy	(AD, type II AR)
3–Familial Alzheimer's	(AD&AR)
4–Familial dementia with spastic ataxia (Gerstmann-Straussler)	
5–Schizophrenia	
6–Gilles de la Tourette syndrome	(AD)
7–Fahr's disease	(AR)
8–Kufs' (2 cases)	(AR)
9–*Dentato-rubro-pallido -luysian atrophy*	*(AD) type II*[36]

Non-Familial disease with tremor/chorea-like movements:
1–Corticostriatospinal degeneration (park-demen-ALS complex)
2–Senile chorea
3–Acquired hepatocerebral degeneration
4–*Basal ganglial infarction*
5–Mercury poisoning
6–Tardive dyskinesia
7–Thyrotoxicosis
8–Birth control pills & pregnancy
9–Lupus
10–Lues
11–Slow virus infection
12–Post encephalitic chorea
13–Sydenham's chorea
14–Anoxic encephalopathy (chronic)
15–Alcoholism
16–MS
17–brain mets
18–polycythemia

Familial diseases with rigidity:
1–Hallervorden-Spatz disease (AR)
2–Familial Parkinsonism (AD)
3–Bilateral thalamic degeneration?

Non-familial diseases with rigidity:
1–Cortical-basal ganglionic syndrome (achromasia)
2–Striatonigral degeneration
3–Progressive supranuclear palsy
4–Shy-Dragger
5–Manganese

Laboratory Tests:

A DNA restriction-fragment-length polymorphism (RFLP) genetically linked to the HD locus was identified in 1983. This discovery has allowed the development of a test for presymptomatic and prenatal recognition of probable gene carriers. The detectable DNA marker (D4S10) linked to the undetectable HD gene is identified by the test and is found four recombination units form the HD gene on the short arm of chromosome 4. The D4S10 allele transmitted with the HD gene may differ in each family. This makes it necessary to examine the segregation of the DNA marker among affected and unaffected relatives. Many family members must cooperate in order to produce an informative test result. Because of a 4% chance of recombination between D4S10 and the HD gene, the test is at best only 95% accurate. It does allow the adjustment of the probability of inheriting the gene from upward of 90% or downwards to < 10%. The most common reason given by patients for having the test is "the need to know." Those found with low probability are greatly relieved. Those found with high probability are faced with the burden of suffering a progressive lethal neurologic disease that may be already transmitted to their children. An elaborate support system is required before hand to deal with the many stresses of this situation.[21]

CT, MRI & PET:

Several CT generated indexes and ratios have been evaluated and variously touted as "suggestive, indicative but not specific for, and reasonably confirmatory in doubtful cases of chorea especially when family history is lacking"! Outside of the obvious clinical inconsistencies, these studies all suffer from several other shortcomings:
– all positive patients already satisfy the clinical criteria for HD, who needs more?
– small numbers of HD cases
– small number and limited spectrum of diseased control cases
– lack of specificity, prominent overlap with obstructive hydrocephalus
– caudate atrophy is not specific for death so cannot be specific for HD
– limited studies to date of other genetic and non-genetic causes of chorea also having caudate atrophy and overlapping with indexes and ratios 'typical of HD.'
– there are clinical cases on record of HD without caudate atrophy or microscopic neuropathologic evidence of disease.[22-26]

MRI has been shown to delineate the caudate better than ct but, to date is no more specific. It may be more sensitive.[27]

PET scanning is more sensitive than either CT or MRI because it can distinguish presymptomatic cases of HD not yet demonstrating caudate atrophy. It may be helpful in identifying presymptomatic cases when gene probe analysis is negative. In the absence of the *clinical diagnosis* of HD, PET can do no more than identify patients with low local metabolic caudate dysfunction; as a number of diseases with indistinguishable from HD. Although very sensitive for caudate metabolic dysfunction PET is not specific for HD.[28-31]

TREATMENT

Treatment is divided into pharmacologic, psychologic and social measures. It is rare that chorea itself requires treatment because of health endangering consequences. It is usually only of cosmetic concern. Recent trends have been to avoid attempts at controlling chorea with major tranquilizeres. They tend to cause excessive sedation and exaggerate the common troublesome clinical features of apathy and withdrawal. When necessary perphenazine has been recommended as least offensive.[3]

Far and away psychiatric, psychosocial, and cognitive dysfunction are the leading causes of disability and suffering in HD. The leading treatable causes of these are depressive illness, psychotic states, demoralization and social withdrawal. Depression is treated in the standard way and should be pursued aggressively even to MAO inhibitors and ECT, both documented helpful in HD without contraindications beyond the usual.

Major tranquilizers are required in significant psychotic symptoms and often together with antidepressants are more effective than either alone. *Cognitive dysfunction has been shown to improve dramatically when symptoms of depression and psychosis are treated and controlled where possible possible.* Teaching the patient to use and make lists help measurably with early memory disturbances allowing the patient to continue contributing to the family effort and maintain self-image. Counselling towards developing an understanding for the need to relegate and relinquish taxing responsibilities are very helpful as well. Social services, church and support groups are invaluable in a variety of personal, family, community, religious and marital conflicts and struggles. Spouse and caregiver support is essential. In many cases institutional care is eventually needed and the family may require help and encouragement toward that decision. [3,7,8,15,16,26] ❑

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The Alabama Automated Defibrillation Pilot Program

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The Alabama Chapter of the American College of Emergency Physicians is now sponsoring a pilot program using EMT-Basic equipped with semi-automatic ("smart") defibrillators for the treatment of cardiac arrest patients in the field. This article outlines the rationale for the program along with present status of results.

RATIONALE

Cardiovascular disease far exceeds trauma or cancer as the leading cause of death in the United States with ventricular fibrillation being the most common rhythm. Early defibrillation is the key factor related to survival from ventricular fibrillation.[1] However, many communities are not willing to bear the expense of maintaining the number of paramedics needed for an effective response time. As a result many Alabamaians live more than 4-5 minutes from a unit capable of providing defibrillation.

Since basic life support units are widespread, it seems logical to provide them with defibrillation capabilities. Defibrillation by basic life support personnel has been endorsed by the American Heart Association's latest recommendations for emergency cardiac care in EMS system.[2] In Iowa, 19% of the cardiac arrest patients found in ventricular fibrillation in rural settings were discharged from the hospital alive when treated by EMT-Basic with defibrillation capability. By contrast, in that study only 3% of those with EMT-Basic treatment alone were discharged alive from the hospital.[3] Other more urban systems have reported resuscitation rates of up to 30%.[4]

Approximately thirty-one states now provide for EMT-Basic defibrillation. Tennessee, Florida and Georgia have all recently provided for this option. Although high survival rates have been reported, systems factors have made results disappointing in some states when not implemented using careful guidelines.

SEMI-AUTOMATIC DEFIBRILLATION

The method employed is called semi-automatic defibrillation. With this procedure, the operator first determines absence of pulse, then applies the semi-automatic defibrillator. The device automatically checks impedance to determine loose leads, then analyzes the rhythm. If ventricular fibrillation or ventricular tachycardia is detected, the system advises the EMT to deliver a shock. The EMT must then press a button to deliver the shock. The sequence may be repeated as often as necessary. It will not charge unless ventricular fibrillation or ventricular tachycardia is detected.

DOCUMENTATION AND DEVICE PERFORMANCE

A two-channel recorder records all ECG and voice information during resuscitation attempts. These recordings may later be reviewed by the medical control physician or his designee.

Retrospective review has revealed specificity of near 100% while sensitivity is approximately 90% for ventricular fibrillation.[5] Therefore, the device is unlikely to cause harm to an arrested individual. It should not be used to replace existing paramedic services because some cases of ventricular fibrillation would not be recognized and shocked.

EXPECTATIONS

Since the frequency of sudden death is roughly 1 per 1000 population per year, the chances of finding ventricular fibrillation roughly 60% and a save rate roughly 20% using an average 4-minute response time, a community of 12,000 might expect to see 1-2 lives per year saved by implementing such a program where advanced life support was not previously available within 10 minutes or less. Similar results might be expected in larger cities where ALS services average greater than 8-10 minutes to selected areas.

COSTS AND TRAINING

The cost of one machine varies from $4,500 to $8,900 with an average life expectancy of 5 years. Six additional hours training beyond the standard EMT-Basic curriculum is required. Fifteen minute quarterly skills review sessions are needed for participation in the program.

THE ALABAMA PILOT PROGRAM

A pilot program using these "smart" defibrillators

operated by EMP-Basics from selected services throughout the state is presently underway. The stated goals are to demonstrate safety and to provide a model for expansion to a statewide program should other literature continue to demonstrate efficacy. It is sponsored by Alabama ACEP with loaned equipment and technical support from Physio Control and Laredal Medical who manufacture the devices.

Each of the test sites (now a total of nine) have been trained by a certified instructor who was monitored by a disinterested outside observer. The pass rate for the six-hour course is greater than 95%. Each provider must tape his first quarterly skills review session and submit this to the medical director for additional review. All runs are also reviewed by the medical director for accuracy of device function and adherence to protocol.

RESULTS

Eight months into the year-long program, there have been eight documented uses of the device with five patients presenting in ventricular fibrillation. Two of these patients have been discharged from the hospital ambulatory under their own power. One patient found in severe pulseless bradycardia expired after a three day hospital admission. No patient has been inappropriately shocked. No patient shocked has suffered prolonged coma. Adherence to protocol has been satisfactory.

DISCUSSION

Fewer than the expected number of arrests have occurred using the population base for the service area of the test sites, however the survival rate for this small number has been higher than expected. The author has verified that this does not represent under-reporting of non-survivors.

With additional experience, the survival rate may be expected to decrease as more arrests occur. At the present time, results from the pilot program are very encouraging though the numbers are too small to be significant. If the trend continues, we might expect to see a recommendation of statewide approval for the use of semi-automatic defibrillators by EMT-Basics in areas not now served within eight to ten minutes average response time by existing ALS services. ❑

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Physician and Provider Obligations Under the Medicare Antidumping Provisions

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The Medicare antidumping provision enacted in 1986 and revised in 1989 has serious implications, not only for hospitals, but also for physicians who provide care for emergency patients. In this article, the author discusses the obligations of health care providers under that provision, some recent developments under the emerging case law, and the implications of these developments for physicians.

INTRODUCTION

The focus of federal health care initiatives during the 1980s was on reducing the rate of increase in federal expenditures on Medicare and, to a lesser extent, Medicaid. At the same time, the federal government sought to provide Medicare beneficiaries with some protection from balance billing and with continued access to health care services.[1] In reality, however, reductions in Medicare and Medicaid payment levels, combined with limitations on balance billing, have tended to reduce the access of Medicare and Medicaid beneficiaries to medical care.[2]

To counter this tendency, Congress has imposed new regulatory requirements on health care providers who agree to participate in Medicare and Medicaid. Indeed, the focus of the Medicare and Medicaid programs in the 1990s is likely to be on regulation of health care providers. Many of these regulations are intended to require providers to furnish medical services, without regard to the potential for payment. The Medicare antidumping provision, enacted in 1986 as Section 1867 of the Social Security Act ("Section 1867"),[3] is a leading example of the trend to use the Medicare program to regulate the delivery of health care services. Although Section 1867 originally was directed at hospitals, at least one recent case indicates that any physician involved in the treatment of emergency patients may be affected by this provision. Moreover, Congress has broadened Section 1867 to cover certain physicians under amendments included in the Omnibus Budget Reconciliation Act of 1989 ("OBRA1989").[4] This article discusses the obligations imposed by Section 1867 and the implications of some of the recent developments in cases arising under Section 1867.

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HOSPITAL AND PHYSICIAN RESPONSIBILITIES UNDER THE ANTIDUMPING PROVISION

Section 1867 requires hospitals to "examine" and "stabilize" all patients who present themselves at a hospital seeking emergency medical care, with certain limited exceptions. It also establishes a right of action that enables patients and hospitals to recover damages from a hospital that has failed to stabilize patients prior to transfer.

The requirements of Section 1867 apply to any hospital with an emergency department that participates in the Medicare program. Significantly, Section 1867 applies to all patients who may present themselves to the emergency department, not just to Medicare patients. The requirements of this section also apply to certain physicians who satisfy the definition of "responsible physician."[5]

Responsibility to Examine and Stabilize All Emergency Department Patients

Initially, the "hospital must provide for an appropriate medical screening examination" of any individual who presents himself or herself at the emergency department, requesting an examination or treatment.[6] The examination is made to determine "whether or not an emergency medical condition" exists.[7] The scope of the required examination is limited to "the capability of the hospital's emergency department."[8]

The statute defines an "emergency medical condition" as:

> (A) a medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain) such that the absence of immediate medical attention could reasonably be expected to result in—
>
> (i) placing the health of the individual (or, with respect to a pregnant woman, the health of the woman or her unborn child) in serious jeopardy,
>
> (ii) serious impairment to bodily functions, or

(iii) serious dysfunction of any bodily organ or part; or

(B) with respect to a pregnant woman who is having contractions—

(i) that there is inadequate time to effect a safe transfer to another hospital before delivery, or

(ii) that the transfer may pose a threat to the health or safety of the woman or the unborn child.[9]

If the emergency room physician, after the medical screening examination, determines that the patient has an emergency medical condition, the hospital is responsible for stabilizing the patient before the patient can be transferred to another institution.[10] The statute defines the term "to stabilize," with respect to an emergency medical condition, as providing "such medical treatment of the condition as may be necessary to assure, within reasonable medical probability, that no material deterioration of the condition is likely to result from or occur during the transfer of the individual from a facility."[11]

The statute provides four limited exceptions to the duty to stabilize a patient prior to transfer. The first exception to this duty arises when the hospital offers to provide further examination or treatment, but the patient "refuses to consent to the examination and treatment."[12] Second, the hospital is not required to provide further treatment if the hospital has arranged for a transfer in accordance with the statute, but the patient "refuses to consent to the transfer."[13] Third, the hospital may transfer a patient prior to stabilization where the patient or the patient's representative makes a written request for such a transfer.[14] Finally, the hospital may transfer a patient prior to stabilization if the emergency room physician concludes and certifies that, "based upon the information available at the time of transfer, the medical benefits reasonably expected for the provision of appropriate medical treatment at another medical facility outweigh the increased risks to the individual and, in the case of labor, to the unborn child, from effecting the transfer."[15] The certification "shall include a summary of the risks and benefits upon which the certification is based."[16]

The hospital's responsibility for treating a patient with an emergency medical condition includes responsibility for ensuring an "appropriate transfer." Specifically, this means that the hospital may not transfer a patient who has been stabilized unless the facility to which the patient is being transferred "has available space and qualified personnel for the treatment of the patient" and has consented to accept the transfer and provide the proper treatment to the patient.[17] Moreover, the transfer itself must be "effected through qualified personnel and transportation equipment, as required including the use of necessary and medically appropriate life support measures during the transfer."[18] For the most part, this provision is directed at hospitals. As discussed below, however, the enforcement mechanism of Section 1867 also includes a penalty directed at the "responsible physician." Thus, physicians who may be in a position of treat-

ing emergency patients must also be aware of the requirements under this provision.[19]

Enforcement Mechanism

Section 1867 contains a number of enforcement provisions directed both at hospitals and at certain physicians who are under contract to provide emergency coverage. First, a hospital that does not satisfy the requirements of Section 1867 can face either suspension or termination of its Medicare provider agreement,[20] which would result in the curtailment of the hospital's eligibility for reimbursement for services performed for any Medicare beneficiaries. Suspension or termination of the Medicare provider agreement would also jeopardize the hospital's participation in other federal programs, such as Medicaid and the Civilian Health and Medical Program of the Uniformed Services.[21]

Second, a hospital that knowingly violates any of the requirements of Section 1867 is subject to a civil monetary penalty of up to $50,000 for each violation.[22] Civil monetary penalties under the Medicare Act may be imposed only after an administrative proceeding before an administrative law judge ("ALJ").[23] In addition, the statute provides any person or entity so fined with the right to appeal the sanction to the appropriate federal court of appeals.[24]

Under the third enforcement provision of Section 1867, any medical facility that suffers a financial loss as a result of an inappropriate transfer may bring a civil action for damages against the transferring hospital, "under the law of the State in which the hospital is located."[25] In appropriate cases, the transferee medical facility also may seek equitable relief.[26]

Fourth, any individual "who suffers personal harm as a direct result of a participating hospital's violation" of Section 1867 also may bring an action against the hospital for damages.[27] Once again, the action is brought "under the law of the State in which the hospital is located," and equitable relief is available in an appropriate case.[28]

Finally, Section 1867 provides that, where a knowing violation has occurred, "any physician who is responsible for the examination, treatment, or transfer of an individual in a participating hospital, including a physician on-call for the care of such an individual ...is subject to a civil money penalty of not more $50,000 for each such violation."[29] A physician who incurs a civil monetary penalty under this section may be excluded from participation in the Medicare program and other health care programs for a period of up to five years.[30] The "responsible physician" is not, however, mentioned in the enforcement provisions of Section 1867 that provide a right of action against the hospital for damages or equitable relief to individuals and other medical facilities.

DECISIONS ARISING UNDER SECTION 1867

As with any new measure, the full sweep of Section 1867 will not be known until the courts have had ample opportunity to construe the provision and apply it in specific cases. In the four years since Section 1867 was enacted, there have been few decisions applying the provision. Although there are published reports of over 100 complaints filed by patients or their representatives who have experienced unlawful transfers,[31] most of those complaints are still far away from a final decision. This section describes the few published decisions that have arisen under Section 1867.

Jurisdictional and Procedural Decisions

The language of Section 1867 does not clearly identify the court in which an injured party can bring an action for damages. In light of this ambiguity, it is not surprising that the primary issue in some of the first reported decisions under the statute has related to the court's jurisdiction to entertain such a complaint. For example, in *Bryant v. Riddle Memorial Hospital*,[32] the question was whether an 81 year-old patient who alleged that she was discharged from a hospital before her condition had been stabilized could bring an action against the hospital for damages in federal district court. The court concluded that the legislative history of Section 1867 demonstrated the intent of Congress "to provide a federal cause of action."[33] The court stated, moreover, that the congressional intent was to provide concurrent jurisdiction of both federal and state courts to hear actions for damages.[34] To date, however, there have not been any state court decisions explicitly adopting a state cause of action based on Section 1867.[35]

A related issue arose in the case of *Wilson v. Atlanticare Medical Center*.[36] In *Wilson*, the defendants claimed that a plaintiff bringing an action under Section 1867 was required to comply with the state law mandating that any malpractice claim first be referred to the state medical malpractice tribunal. The federal district court agreed, and referred the case to the tribunal, which found that the plaintiffs claims were not substantial. In accordance with state law, the cases could not then proceed unless the plaintiff posted a bond. When the plaintiff failed to post the bond, the district court dismissed the case.[37]

On appeal to the Court of Appeals for the First Circuit, the plaintiff challenged the dismissal. The court declined to reach the merits of the appeal, however, finding that the plaintiff had failed to preserve her arguments before the district court. In particular, the appellate court noted that the plaintiff had failed to submit a brief to the district court elucidating the arguments she ultimately relied upon in her appeal.[38] Under these circumstances, the court of appeals refused to resolve the

issue of whether a plaintiff is required to comply with state malpractice tribunal procedures before bringing an action under Section 1867.

The issue that was not reached in *Wilson* was one of the subjects of *Reid v. Indianapolis Osteopathic Medical Hospital*.[39] The court in Reid considered two questions: (1) whether state limitations on malpractice awards would apply to a Section 1867 case; and (2) whether state procedures requiring referral of a case to a state medical review panel before a court action could proceed would apply to a Section 1867 case.

The District Court for the Southern District of Indiana concluded in Reid that state procedures requiring referral to a state medical review panel were preempted by the federal antidumping provision. Thus, the plaintiff could not be required to follow those procedures before bringing an action under Section 1867.[40] On the first issue, however, the court found that "it is entirely reasonable to read the language of section 1395dd(d)(3)(A) as Incorporating state law caps on medical malpractice damages."[41] Accordingly, any liability action based on Section 1867 would be limited by state caps on damages.

Similarly, in *Maziarka v. St. Elizabeth Hospital*,[42] a federal district court concluded that punitive damages could not be awarded in a Section 1867 liability action where a state law provided that punitive damages were not available in malpractice cases. The court in *Maziarka* did find that a plaintiff could seek an injunction under Section 1867, however, even in the absence of a showing of irreparable injury.[43]

Decisions Defining Obligations of Providers

When new laws are enacted, a substantial period of time often passes before a body of case law is formed applying the provision to specific facts. Until that body of case law develops, it may be unclear how the provision will be applied. In the case of Section 1867, there have been only two reported decisions that have construed the substance of the law and the obligations of providers under the law.

The first court decision construing the substance of Section 1867 was *Thompson v. St. Anne's Hospital*.[44] That case involved an action by a pregnant patient who was in labor when she arrived at a private hospital, only to be transferred to the county hospital, where she subsequently delivered. The infant, born four and one-half months prematurely, survived for only five hours. The plaintiff subsequently brought an action based on Section 1867 against both the hospital that transferred her and the county hospital that accepted the transfer and ultimately treated her. The county hospital moved to be dismissed from the case, claiming that, as the transferee hospital and the recipient of a "dumped" patient, it could not be held liable under Section 1867.[45]

The federal district court in *Thompson* disagreed with the county hospital's reasoning. Even though there was no question that the county hospital had accepted the patient and provided treatment for her, there was a question about the adequacy of the treatment. Specifically, the plaintiff alleged that the county hospital had failed to properly examine, monitor, and stabilize her after the transfer.[46] The court held that the plaintiff's allegation of inadequate post-transfer stabilizing treatment was sufficient to make out a claim for violation of Section 1867 against the transferee hospital.[47]

While the decision in *Thompson* is at an early stage, its potential implications are disturbing. If this decision were upheld after a trial and ultimate appeal, it apparently would broaden the scope of Section 1867 to encompass all phases of treatment of emergency cases. Indeed, based on *Thompson*, a plaintiff could theoretically make out a case under Section 1867 even where there was no transfer at all. This interpretation potentially could turn any traditional malpractice action involving the treatment of an emergency patient into a federal case under Section 1867.

The only other reported decision directly interpreting the substance of the antidumping provision is *Inspector General v. Burditt*.[48] This decision involved the imposition of sanctions on a physician, Dr. Burditt, who had declined to treat a patient who was in active labor and also had an emergency medical condition. The Burditt decision is the first final decision assessing a civil monetary penalty against an individual physician for violating Section 1867.

In *Burditt*, an indigent patient, Mrs. Rivera, presented in active labor at the emergency room of a rural Texas hospital. The hospital had no prior medical records for Mrs. Rivera, who did not have a regular obstetrician, had not received prenatal care, and was suffering from very high blood pressure.[49]

Dr. Burditt, an obstetrician on the medical staff at the hospital, was on call for emergency coverage when Mrs. Rivera arrived at the hospital. Under the hospital's medical staff bylaws, ob/gyn physicians were required to provide emergency care on a rotation basis to ob/gyn patients who presented at the hospital without a regular physician. The requirement that medical staff members provide emergency coverage was viewed as a quid pro quo for their right to admit their private patients to the hospital and to use the hospital's facilities.[50]

Apparently, Dr. Burditt sought to limit his practice to low risk patients to reduce his potential malpractice exposure. When called to care for Mrs. Rivera, Dr. Burditt stated that "he did not want to take care of this lady,"[51] and he recommended that she be transferred to another hospital – 160 miles away – that had greater resources to treat high risk patients.[52]

After personally examining Mrs. Rivera for a brief period shortly after she arrived at the hospital, Dr. Burditt called a physician at the transferee hospital, who agreed to accept the transfer.[53] After the initial examination, Dr. Burditt did not see Mrs. Rivera again, nor did

he seek to consult with other physicians on the medical staff regarding the care of a high risk patient in active labor. Rather, he proceeded to implement the transfer, after signing a statement that the medical benefits of the transfer outweighed the risks.[54]

On Dr. Burditt's orders, Mrs. Rivera was prepared for transfer and taken from the hospital by ambulance. The ambulance left the hospital about two hours after Dr. Burditt initially examined Mrs. Rivera, and about 40 minutes after the ambulance left the hospital, Mrs. Rivera gave birth to a healthy baby. At that point, Mrs. Rivera asked to be returned to the transferring hospital. Upon her return to the hospital, Dr. Burditt again refused to render treatment. He did, however, make arrangements for her treatment by another ob/gyn physician on the hospital's medical staff.[55]

On these facts, the Office of Inspector General decided to prosecute Dr. Burditt under the civil monetary penalties portion of Section 1867.[56] In a proceeding before the Health and Human Services Departmental Appeals Board, the ALJ concluded that Dr. Burditt had violated the Medicare antidumping provision. The ALJ then assessed a fine of $20,000 against Dr. Burditt.[57]

The ALJ's decision in *Burditt* is an important precedent for a number of reasons. Most importantly, the decision is the first to apply Section 1867 to a specific fact situation. It thus helps define the scope of health care providers' obligations under the antidumping provision. In particular, the ALJ found that Dr. Burditt's actions fell short of a number of requirements imposed by this provision.

First, the ALJ found that it was not enough for Dr. Burditt to examine the patient just once before ordering the transfer. Rather, the ALJ found that, because a physician's assessment that a transfer is in the best interest of a patient should be made *at the time of the transfer*, Dr. Burditt also had a responsibility to examine the patient immediately prior to the transfer.[58]

Second, the ALJ was critical of Dr. Burditt's certification that the benefits of a transfer outweighed the risks. The ALJ reviewed all the medical factors that were known at the time and found that the risks of transfer substantially outweighed any benefits.[59] The ALJ's decision thus makes clear that the certification required for justifying a transfer is not just a pro forma requirement, but must be based on a careful appraisal and evaluation of all the risk factors. The physician certifying the transfer should therefore document all the risks that he or she has considered in recommending the transfer. Indeed, under the OBRA-1989 amendments, the physician is now explicitly required to summarize "the risks and benefits upon which the certification is based."[60] The physician's entries on the patient's medical chart should fully support the physician's conclusion that the benefits of the transfer outweigh the risks of treating the patient at the transferring hospital.

Finally, the ALJ's decision indicated that Dr. Burditt should be held responsible for the method and procedures by which the transfer was conducted. The ALJ found that the physician had failed to ensure that the ambulance was properly equipped with trained personnel and essential life support equipment, and held that the physician was responsible for these shortcomings under Section 1867:

> Thus, given that Mrs. Rivera's hypertension had not been stabilized and given that she was in "active labor" under the definition of Section 1867, the failure of Respondent to assure that Mrs. Rivera was transported in a properly staffed and equipped ambulance is sufficient under Section 1867 to make her transfer inappropriate and a violation of Section 1867.[61]

In addition to its application of Section 1867 to specific facts, the *Burditt* decision is highly significant because it applied the antidumping provision to a physician who was not directly under contract to operate the hospital's emergency department. The original language of Section 1867, by its terms, applied only to the responsible physician – i.e., the physician who was under contract with a hospital and who had professional responsibility for the provision of examinations and treatments for emergency patients.[62] The ordinary language of this provision would thus appear to be limited to those physicians who regularly staff the emergency room. In *Burditt*, the only connection Dr. Burditt had to the hospital was through his medical staff privileges. The ALJ concluded, however, that staff privileges were Enough:

> I conclude that, as a matter of federal law, if a staff physician acts to fulfill a hospital's duties to provide emergency services to the community as a condition of maintaining his privileges at a hospital, the physician is acting "under contract with" that hospital for the purpose of Section 1867(d)(2) of the Act.[63]

The ALJ viewed the medical staff bylaws as a contract under which Dr. Burditt's right to admit patients was conditioned on his promise "to take part in the care and treatment of 'unaligned' obstetrical patients," and construed that promise to be sufficient to make each member of the medical staff happening to be on call for emergency coverage a "responsible physician" within the meaning of Section 1867.[64]

The OBRA- 1989 amendments to Section 1867 broaden the definition of physician to remove the doubt created by the original language. Thus, Section 1867 now clearly applies to "*any* physician who is responsible for the examination, treatment, or transfer of an individual in a participating hospital, including a physician on-call for the care of such an individual."[65]

IMPLICATIONS FOR PHYSICIANS

Recent developments indicate that all members of a hospital's medical staff may have substantial obligations under Section 1867 that are significantly broader than physicians' obligations under the common law. Traditionally, a physician has complete discretion as to

which patients will be accepted for treatment, and the physician becomes professionally responsible only after beginning to render treatment. Thus, common law imposes no obligation on the physician initially to accept and treat a patient.

Under Section 1867, members of a hospital's medical staff who are assigned coverage for emergency cases may nol decline to provide treatment to any patient. A physician who believes he or she is not the best physician on staff to provide care for a particular patient may consult with other physicians or ask another physician to handle the case. However, until another staff physician agrees to handle the case, the physician on emergency call cannot decline to provide medical care to examine and stabilize the emergency patient.

Physicians should also be aware of the additional risk that the federal obligation under Section 1867 to examine and stabilize emergency patients may be adopted by state courts as an obligation of physicians in professional liability actions. Indeed, the concurring opinion of Justice Kennedy in *Chandler v. Hospital Authority of Huntsville*,[66] already takes that position. Thus, physicians may no longer be able to rely on common-law protections to avoid treating emergency patients.

In addition, physicians should note that the obligation to stabilize an emergency patient under Section 1867 is not necessarily terminated when the physician turns the patient over to an ambulance company to transfer the patient. Section 1867 provides that the transfer must be "effected through qualified personnel and transportation equipment, as required including the use of necessary and medically appropriate life support measures during the transfer."[67] Thus, as the court concluded in *Burditt*, the physician certifying the appropriateness of the transfer may be held responsible if the transfer does not satisfy this standard.

Finally, it should be reiterated that the obligations imposed on physicians and hospitals under Section 1867 are *not* limited to Medicare and Medicaid patients. Rather, they extend to any patient who may present at a hospital with an emergency medical condition. Thus, the physician who elects not to treat *any* emergency patient risks liability under Section 1867. ❑

REFERENCES

1. Balance billing is the practice by which a health care provider bills patients for the difference between the provider's usual fees for a service and the amount actually reimbursed under Medicare and other health care programs. Balance billing effectively shifts to the beneficiary the burden of reductions in reimbursement. Providers under the Medicaid program are barred from balance billing.
2. Indeed, there is evidence suggesting that bans on balance billing in Massachusetts, combined with inadequate Medicare and Medicaid reimbursement levels in that state, have led to a reduction in the number of physicians providing services in Massachusetts. *See the Great Doctor Revolt*, MED. ECON., June 3, 1989, at 99.
3. 42 U.S.C. § 1395dd (Supp. V 1987) (codifying Consolidated Omnibus Budget Reconciliation Act of 1985, Pub. L. No. 99-272, tit. IX, § 9121, 100 Stat. 82, 164 (1986)).
4. Pub. L. No. 101-239, tit. VI, § 6211, 103 Stat. 2106, 2245.
5. *See infra* note 29 and accompanying text.
6. 42 U.S.C. § 1395dd(a) (Supp. V 1987).
7. *id.*
8. *id.*
9. *Id.* § 1395dd(e) (1), *as amended by* OBRA-1989 § 6211 (h)(1)(A) (§ 6211 broadened definition of patient to include an unborn child and modified other language of antidumping provision).
10. *Id* . § 1 395dd(b)(1).
11. *Id.* § 1395dd(e)(4)(A), *as amended by* OBRA1989 § 6211 (h)(1)(C).
12. *Id.* § 1395dd(b)(2), *as amended by* OBRA1989 § 621 l(b)(l)(B). Section 621 l(b)(l)(C) of OBRA-1989 further amended this provision to require the hospital to inform the patient of the risks and benefits of the examination and treatment and to "take all reasonable steps to secure the individual's (or person's) written informed consent to refuse such examination and treatment t. "
13. *Id.* § 1395dd(b)(3). Section 6211(b)(2) of OBRA-1989 amended this provision to require the hospital to take reasonable steps to secure the patient's "written informed consent to refuse such transfer."
14. *Id.* § 1395dd(c)(1)(A)(i), *as amended by* OBRA-1989 § 6211(c)(1). Section 6211(c)(1) of ORBA-1989 also requires the hospital to inform the patient of the hospital's obligations under § 1867 and of the risks of transfer.
15. *Id.* § 1395dd(c)(1)(A)(ii), *as amended by* OBRA-1989 § 621 l(c)(2), (3).
16. *Id.* § 1395dd(c)(1), *as amended by* OBRA1989 § 6211(c)(4).
17. *Id.* § 1395dd(c)(2)(A) (redesignated § 139dd (c)(2)(B) by OBRA-1989 § 621 I(c)(5)(A)).
18. *Id* . § 1 395dd(c)(2)(C) (redesignated § 1 395dd (c)(2)(D) by OBRA-1989 § 621 I(c)(5)(A)).
19. Section 6018 of OBRA-1989 added certain requirements relating to Section 1867. For example, hospitals are required "to ensure compliance" with Section 1867. They also must "maintain a list of physicians who are on call for duty after the initial examination to provide treatment necessary to stabilize an individual with an emergency medical condition." The amendment also requires hospitals to post notices informing patients of their rights under Section 1867.
20. 42 U.S.C. § 1395dd(d)(1) (Supp. V 1987).
21. *Id.* § 1320a-7(b)(5).
22. *Id.* § 1395dd(d)(2), *as amended by* Medicare Catastrophic Coverage Act of 1988, Pub. L. No. 100-360, tit. IV, § 411(b)(8)(A)(i), 102 Stat. 683, 771.
23. *Id.* § 1320a-7a(c).
24. *Id.* § 1 320a-7a(e).
25. *Id.* § 1395dd(d)(3)(B).
26. *Id.*
27. *Id.* § 1 395dd(d)(3)(A).
28. *Id.*
29. *Id.* § 1395dd(d)(2)(B), *as amended by* OBRA1989 § 6211 (e)(1). The term "responsible physician" was originally defined as:

> a physician who—
>
> (A) is employed by, or under contract with, the participating hospital, and
>
> (B) acting as such an employee or under such a contract, has professional responsibility for the provision of examinations or treatments for the individual, or transfers of the individual, with respect to which the violation occurred.

42 U.S.C. § 1395dd(d)(2) (Supp. V 1987).
30. *See* 42 U.S.C. §§ 1395dd(d)(1), 1395u(j)(2), 1320a-7 (1982 & Supp. V 1987).
31. COMM. ON GOV'T Operations, UNION CALENDAR No. 326, H.R. Rep. No. 531, 100th Cong., 2d Sess., *reprinted* in Medicare & Medicaid Guide (CCH) ¶ 37,070. at 16,653 (Mar. 25, 1988). It is not clear how many of these have been confined to complaints filed with the Health Care Financing Administration and how many have been civil complaints filed in federal court. Most of these cases apparently have been clustered in Texas and California.
32. 689 F. Supp. 490 (E.D. Pa. 1988).
33. *Id.* at 492.
34. *Id.* There is an open question as to whether Congress can create a federal cause of action that state courts are obliged to hear.
35. The closest state court decision is Chandler v. Hospital Auth. of Huntsville, 548 So. 2d 1384 (Ala. 1989). In that case, the concurring opinion of Justice Kennedy concluded that hospitals have a duty, as a matter of public policy and law, to stabilize emergency patients before any discharge or transfer. *Id.* at 1387. Justice Kennedy's decision drew heavily from the Medicare antidumping provision, going so far as to suggest that punitive damages might be available under the provision. *Id* . at 1388.
36. 868 F.2d 34 (lst Cir. 1989).
37. *Id.* at 35.
38. *Id.* at 35-36.
39. 709 F. Supp. 853 (S.D. Ind. 1989).
40. *Id.* at 854-55.
41. *Id.* at 855.
42. 4 Medicare & Medicaid Guide (CCH) ¶ 38,010 (N.D Ill. Feb. 16, 1989).
43. *Id.*
44. 716 F. Supp. 8 (N.D. Ill. 1989).
45. *Id.* at 9.
46. *Id.*
47. *Id* . at 10.
48. 4 Medicare & Medicaid Guide (CCH) ¶ 38,027, at 20,797 (HHS Departmental Appeal Bd. July 28, 1989).
49. *Id.* at 20,802, 20,808.
50. *Id.* at 20,802.
51. *Id.*
52. The transferee hospital had a Level III perinatal unit, while the rural hospital had a Level II perinatal unit. *Id.* at 20,804.
53. *Id.* at 20,803.
54. *Id.* at 20,804-05. The statement signed by Dr. Burditt did not specify any of the risks and benefits evaluated by him.
55. *Id.* at 20,806.
56. *See* 42 U.S.C. § 1395dd(d)(2) (Supp. V 1987), *as amended by* OBRA- 1989 § 6211 (e). The Office of Inspector General ("OIG") also took action against the hospital. However, because the hospital agreed to settle OIG's claim, the hospital was not involved in the *Burditt* decision. *Burditt*, 4 Medicare & Medicaid Guide (CCH) ¶ 38,027, at 20,802.
57. *Burditt*, 4 Medicare & Medicaid Guide (CCH) ¶ 38,027, at 20,817.
58. *Id.* at 20,814.
59. *Id.* at 20,811.
60. 42 U.S.C. § 1395dd(c)(1) (Supp. V 1987), *as amended by* OBRA-1989 § 6211(c)(4).
61. *Burditt*, 4 Medicare & Medicaid Guide (CCH) ¶ 38,027, at 20,814.
62. *See supra* note 29.
63. *Burditt*, 4 Medicare & Medicaid Guide (CCH) ¶ 38,027, at 20,815.
64. *Id.*
65. 42 U.S.C. § 1395dd(d)(2)(B) (Supp. V 1987), *as amended by* OBRA-1989 § 621 l(e)(1) (emphasis added).
66. 548 So. 2d 1384 (Ala. 1989).
67. 42 U.S.C. § 1395dd(c)(2)(C) (Supp. V 1987) (redesignated § 1395dd(c)(2)(D) by OBR-1989 § 6211 (c)(5)(A)).

Nutrition Counseling: Guidelines For The Practicing Physician

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Americans thrive on news about food, nutrition, diets and fitness. Testimony to this phenomenon is the predominance of popular literature related to these topics in the print and broadcast media. All too often the emphasis is on overnight or simple solutions to complex problems. The public is an easy mark for the "health peddler" who lacks credentials but possesses effective motivational skills and speaks with conviction about unfounded promises and exaggerated outcomes. Nutrition misinformation wastes billions of dollars every year but the greatest harm occurs when needed medical intervention is delayed or ignored.

Patients expect physicians to be able to answer nutrition related questions and to know where to refer them for further nutritional guidance when needed. (1) In order to assure appropriate referrals, physicians need to know where to find a qualified dietitian/nutritionist and how to verify appropriate credentials. When a patient is referred to a dietitian for nutrition assessment and counseling, the expectations should be clear to all concerned and should include a plan for follow-up communication. This article describes the basis for and benefits of a partnership between the physician and dietitian in providing quality health care and patient education.

WHAT TO LOOK FOR IN A DIETITIAN

REGISTERED DIETITIAN (R.D.)

In 1969, members of the American Dietetic Association recognized the need for a national examination to credential the dietitian, establishing uniform educational requirements for eligibility to write the examination and requirements for continuing education to maintain registration status. Every five years a registered dietitian must complete seventy-five hours of continuing education approved by the Commission on Dietetic Registration (CDR) of the American Dietetic Association in order to maintain registration credentials. (2) All educational routes to become a registered dietitian require a minimum baccalaureate degree and are evaluated according to the Standards of Education set by the Council on Education's Division of Education Standards of The American Dietetic Association.(3) The registered dietitian is the only professional whose specific education and scope of practice is devoted to the art and science of human nutrition and the application of food related decisions to the promotion of health and treatment of disease.

LICENSED DIETITIAN (L.D.)

A growing concern across the nation for many years has been the problem of nutrition misinformation to the public. In the absence of licensure legislation, there was no control over the use of the general title of nutritionist or dietitian. For example, door to door vitamin salesmen with no professional training or education in nutrition could and have called themselves "nutritionists." Lay individuals selling liquid diet products have called themselves "nutrition counselors." The public has been understandably confused by multiple uses of these terms. In order to protect the public, states have begun to seek title acts and/or licensure bills to describe appropriate uses of the terms nutritionist and dietitian or variations thereof and to define the scope of practice for dietetics. Currently there are eighteen states who have licensure laws. The Alabama Dietetic/Nutrition Practice Act of 1989 makes it a misdemeanor for an unlicensed individual to represent himself as a dietitian/nutritionist and to practice dietetics. This Act recognizes the national Registration Examination for

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Dietitians in lieu of another state examination and requires completion of thirty hours of continuing education every two years to maintain licensure.(4)

In seeking assurance that individuals offering nutrition counseling are qualified, both physicians and the general public will benefit from an understanding of the meaning of the titles R.D. and L.D. Verification of the credentials for individuals may be obtained respectively by calling The American Dietetic Association and the Alabama Licensure Board.

PERSONAL QUALIFICATIONS

The art of effective nutrition counseling requires the dietitian to have strong skills in communication, motivation, evaluation and management. The need to be flexible and innovative is essential when lifelong changes in food habits are necessary. There are over 10,000 items in supermarkets today and the variety of food choices through convenience foods continually grows. The effective registered dietitian must be a sensitive individual who can translate the scientific rationale for the modified diet into practical, achievable daily nutrition goals for the patient. At the most basic level this includes a study and review of the patient's and family's food habits and barriers to success (economic, psychological, physical, educational). Treating the patient outside of the context in which he lives is tantamount to failure and frustration. Nutrition counseling mandates two-way communication with the goal of understanding all related factors which may affect the achievement of treatment goals through behavioral and attitudinal changes. This is time consuming but necessary and rewarding.

The physician should establish a relationship with a dietitian in much the same way referral relationships are established with other professional sources. Effective referral relationships between colleagues are based on mutual respect and trust. According to Zifferblatt and Wilbur (S) any expectations that lifelong changes will result from a few counseling sessions is unrealistic, and all concerned (the patient, the physician and the dietitian) should be cognizant of this. A partnership among all three participants is necessary and a plan for communication and reinforcement of recommendations is essential.

WHAT TO PROVIDE THE DIETITIAN

The physician should identify the primary reason for the referral. The dietitian will be better able to serve the patient if the referral includes all diagnoses, current medications, pertinent laboratory data, and the history of weight changes or growth patterns when appropriate. A sample referral form as provided in Figure 1 may be useful.

WHAT TO EXPECT FROM THE DIETITIAN

The physician should expect a written report from the registered dietitian which provides the basis for understanding and reinforcing the nutrition care plan. A sample form summarizing the nutrition care plan for the referring physician is found in Figure 2. This form has evolved from ten years of experience in nutrition counseling at the Capstone Medical Center. It provides feedback to medical students, residents, faculty, and private physicians in the community. In addition a narrative report in the SOAP format accompanies the nutrition care summary to the referring physician. See Table 1 for a description of the Nutrition SOAP note.

Informal communication, such as personal contacts and phone calls, between the physician and dietitian are other important avenues for promoting understanding of and reinforcement for the nutritional care plan and counseling directions. Such communication enhances professional rapport and mirrors the referral relationships that exist among medical colleagues.

Experience suggests that the more varied the means of monitoring behavior changes and measuring outcomes, the more positive will be the reinforcement gained by the patient. Self-monitoring allows the patient to be a participant with the dietitian and physician in the treatment of the medical problem. The registered dietitian should inform the referring physician of the management and monitoring tools being used so that the physician, who will have a longer continuing relationship with the patient, can provide meaningful reinforcement and follow-up for the nutrition care plan.

WHERE TO FIND A REGISTERED AND LICENSED DIETITIAN

All hospitals and nursing homes are required to have either a fulltime or a part-time registered dietitian. At a minimum they must have a consultant registered dietitian. Increasingly, hospital dietetic departments are providing outpatient or ambulatory nutrition counseling. Similarly, consultant dietitians who have traditionally worked with small hospitals and nursing homes are beginning to work with individuals and group medical practices to provide nutrition counseling. Dietitians are also found in county or district health departments and may be a resource for counseling or referral to a specific dietitian in that respective county. At present there are over 500 registered and licensed dietitians in Alabama. Some dietitians in private practice may advertise in the yellow pages. Whether in settings where there are full-time, part-time or consultant dietitians, the key to making available nutrition counseling in ambulatory care is having physicians request these services.

TABLE 1.
DESCRIPTION OF A
NUTRITION SOAP NOTE

S = Statement of reason for referral
- Description of patients concerns or complaints
- Explanation of patient's and family medical history
- Description of family makeup, patient's occupation and support network
- Report of Dietary history and data base

O = Identification of pertinent laboratory data
- Measurements of height, weight, skinfold and/or circumference measurements

A = Evaluation of the patient's comprehension and motivation
- Evaluation of the effects of the constraints on outcome expectations
- Evaluation of clinical and laboratory data in relation to nutritional needs and modification
- Assessment of current dietary practices in relation to necessary modifications
- Evaluation of need for referral for community support services, e.g. Food Stamps, etc.

P = Description of the specific goals to be achieved
- Identification of the dietary prescription
- Description of the nutrition education areas discussed and those needed for subsequent visits
- Explanation of the management and self-monitoring techniques to be used
- Explanation of the plan for follow up counseling

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HOW TO PREPARE PATIENTS FOR THE REFERRAL TO A DIETITIAN

Patients should know the purpose of the referral and will be more receptive to the additional intervention if the potential value is explained. For example, the physician may identify the purpose of a referral to be to improve blood glucose control through better dietary management. In this case the physician should explain that this may also prevent the need for advancing from oral hypoglycemic medication to the use of insulin.

In preparing a patient for an initial dietary counseling visit the physician should recommend that the patient keep a food diary of his usual dietary intake for three to seven days. No special format is necessary although the instructions in Table 2 should be followed. The consultant dietitian may provide a sample form which the patient could use. The availability of a food diary at the time of the initial interview has distinct advantages to the patient and the dietitian. By completing a diary the patient has made an investment of time which is an indication of personal commitment and motivation. Of particular value, the patient often has made some personal discovery which is important in the treatment plan. Having a written diary available saves the dietitian valuable interview time and provides a more reliable dietary data base. More time can then be devoted to patient education issues and treatment goals.

TABLE 2.
INSTRUCTIONS FOR A FOOD DIARY

1. Record all food and beverages consumed.
2. Measure or estimate amounts consumed for each.
3. Record method of food preparation (baked, fried, etc.)
4. List amounts of all additions to food (margarine, mayonnaise, sugar, jelly, etc.)

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HOW TO EVALUATE OUTCOMES

Outcome measures are an essential component of quality assurance. On a continuing basis the physician and registered dietitian who do not practice in the same facility will need to provide each other the results of their intervention. As an example, in the case of an obese patient with hypercholesterolemia, the physician should provide any reports of changes in the serum cholesterol and/or lipid profile, changes in medications, or new diagnoses. The dietitian should provide the physician with evaluations of compliance on the dietary prescription (specifically the fat, calorie, fiber and cholesterol modifications,) exercise recommendations, and changes in weight and body composition. These evaluations are critical in determining whether the initial dietary therapy has had a reasonable opportunity to be effective before proceeding to a more agressive mode of intervention nutritionally or medically.

Continued on page 51

1) Developed at the University of Alabama School of Medicine, Tuscaloosa Program, College of Community Health Sciences, Department of Family Medicine.
2) "SOAP" is an acronym for the written record of the medical encounter. S = Subjective data; O = Objective data; A = Assessment, and; P = Plan.

Mucormycosis: A Community Hospital Perspective

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ABSTRACT

Mucormycosis (synonymous with phycomycosis and zygomycosis) is a devastating fungal infection which usually involves patients with diabetes mellitus, often complicated by ketoacidosis, and malignant neoplasms, commonly leukemia and lymphoma. Clinical manifestations include rhinocerebral, pulmonary, disseminated, isolated cerebral, gastrointestinal and cutaneous disease. Common to all forms of mucormycosis is vascular invasion with production of necrotic tissue. The diagnosis is achieved by demonstrating broad, nonseptate hyphae with right-angle branching in a tissue biopsy specimen. Successful treatment consists of early diagnosis, intensive systemic antifungal therapy with amphotericin B, aggressive surgical debridement and control of the underlying disease. In our experience with mucormycosis at Huntsville Hospital, the patients were immuno- compromised and the infection was restricted to the lung. Despite use of amphotericin B in all patients, the only one who survived underwent surgical section of infected tissue.

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Most large series on mucormycosis origninate from university affiliated, tertiary care hospitals[1-3] and their applicability to community hospitals is unknown. Furthermore, as the population of immunocompromised patients increases in community hospitals, physicians utilizing these facilities can expect to see more patients at high risk for and with mucormycosis. We review our experience with mucormycosis at Huntsville Hospital, Huntsville, Alabama, and compare our cases with previous series. We also attempt to familiarize physicians with the clinical manifestations, diagnosis and treatment of this potentially devastating fungal disease.

MATERIALS AND METHODS

We reviewed the charts of all patients discharged from Huntsville Hospital, Huntsville, Alabama, for the five year period, 1984-1988, with a diagnosis of mucormycosis. Mucormycosis was diagnosed when broad, irregularly-shaped, nonseptate hyphae with right-angle branching were identified invading tissue.

RESULTS

Table I describes the clinical characteristics of three cases of mucormycosis. The patients ranged in age from 53 to 61 years and averaged 57 years. Two patients were female and one was male. All patients were immunocompromised hosts (leukemia in two patients and myelodysplastic syndrome in one patient) whose infections involved the lungs. The diagnosis was established premortem in two of three

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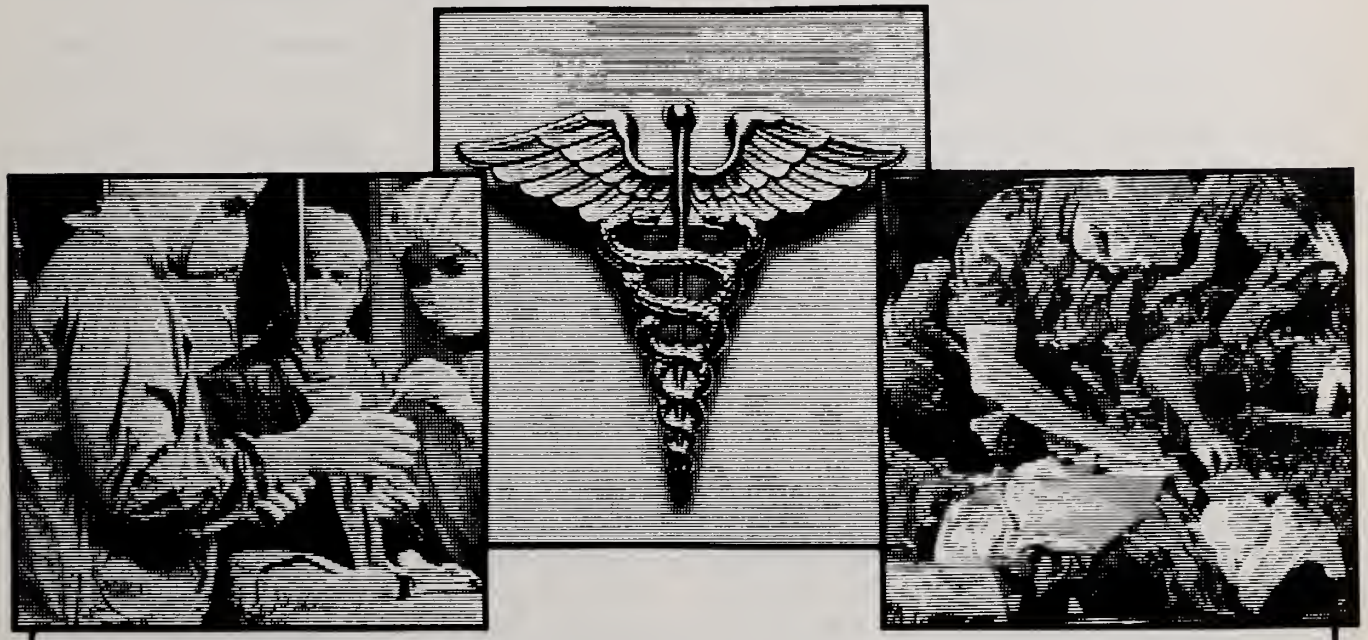

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Table I
Mucormycosis - Huntsville Hospital, 1984-1988

Case	Age (yr) Sex	Underlying disease	Location	Premortem diagnosis	Treatment	Outcome
1	57/F	Acute lymphocytic leukemia	Pulmonary	Yes	Amphotericin B, lobectomy	Survived
2	53/F	Acute myelomonocytic Leukemia	Pulmonary	Yes	Amphotericin B	Died
3	61/M	Myelodysplastic syndrome	Pulmonary	No	Amphetericin B	Died

patients. The one patient who survived was treated with amphotericin B and lobectomy while the two patients who died received amphotericin B without pulmonary resection.

DISCUSSION

Mucormycosis (synonymous with phycomycosis and zygomycosis) is a fungal infection caused by members of the order Mucorales which comprises Cunninghamellaceae, Mortierellaceae, Saksenaeaceae, Syncephalastraceae and Mucoraceae. Only Mucoraceae frequently is appreciated as a human pathogen and encompasses the genera absidia, mucor, rhizomucor and rhizopus. Mucoraceae commonly are found in nature growing on bread or fruit or in soil. In tissue Mucoraceae appear as broad, irregularly-shaped, nonseptate hyphae with right-angle branching. A striking tendency to invade blood vessels with resulting hemorrhagic infarction is encountered in mucormycosis.[4]

Mucormycosis rarely involves normal hosts and commonly is associated with diabetes mellitus, often complicated by ketoacidosis, and malignant neoplasms, usually leukemia and lymphoma. Clinical manifestations attributable to mucormycosis include rhinocerebral, pulmonary, disseminated, isolated cerebral, gastrointestinal and cutaneous disease. Because of vascular invasion, all forms of mucormycosis are characterized by infarction with generation of black, necrotic tissue.[5]

Rhinocerebral mucormycosis exhibits a predilection for poorly controlled diabetics and recently was described in renal transplant recipients. It originates in the nasal sinus or palate with extension to the retro-orbital region and brain. Vascular invasion culminates in cavernous sinus and internal carotid artery thrombosis. Clinical findings consist of necrotic nasal or palate mucosa, headache, diminished vision, ophthalmoplegia, proptosis, periorbital cellulitis and cranial nerve palsies. Cerebral involvement, either directly by the organism or via infarction, is characterized by motor function loss, stupor and coma.[6,7]

Pulmonary mucormycosis occurs as a discrete lesion or as part of a disseminated infection and apparently originates by inhalation of the fungus. Mucormycosis of the lung usually is recognized in patients with leukemia or lymphoma, often in association with granulocytopenia, and has been reported to complicate diabetes mellitus, uremia and burns. Anatomically it appears as pulmonary infarction secondary to blood vessel invasion and clinically presents as persistent fever and occasionally cough and hemoptysis despite broad-spectrum antimicrobial therapy. Radiographic findings include patchy infiltrates, consolidation and cavity formation.[1,5] In our series mucomycosis was diagnosed in immunocompromised hosts and was restricted to the lung.

Disseminated mucormycosis invariably afflicts immunosuppressed patients and is uniformly fatal. The lung is the most common site followed by the spleen, kidney, central nervous system and heart. Antemortem dianosis is rare owing to the lack of specific findings and the difficulty in growing the organism from readily accessible tissues and fluids. Concomitant fungal, bacterial and viral infections are the rule.[1,3]

As discussed earlier, cerebral involvement by mucormycosis has been documented as a manifestation of rhinocerebral disease and during disseminated infection. Recently cases of isolated cerebral mucormycosis have been described in intravenous drug abusers, following head trauma and during renal insufficiency. Fever, headache, lethargy and focal neurologic deficit are the most common clinical findings. The pathogenesis of isolated cerebral infection varies with the underlying condition and consists of the hematogenous route in intravenous drug abusers and direct implantation as a consequence of head trauma.[8]

Gastrointestinal mucormycosis is a rare condition frequently associated with amebiasis, pellagra and malnutrition. The stomach followed by the colon are commonly involved and the infection can extend contiguously or disseminate hematogenously. Gastrointestinal mucormycosis presumably results from ingestion of spores. Invasive disease portends a dismal prognosis whereas colonization is associated with a favorable outlook.[1,9]

Cutaneous manifestations of mucormycosis are varied but common to all of them are vascular invasion with production of necrotic tissue. Nosocomial acquisition has been described following application of contaminated adhesive bandages over surgical incisions[2] while invasion of burn wounds has resulted in deep infection with systemic dissemination.[10] Gangrenous cellulitis involving the abdominal wall and extremities has followed surgery and traumatic injury often with diabetes mellitus as an underlying disease.[11] Secondary cutaneous lesions resulting from hematogenous dissemination include nodular masses and ecthyma gangrenosum.[5]

Successful treatment of mucormycosis consists of early diagnosis, intensive systemic antifungal therapy, aggressive surgical debridement and control of the underlying disease.

The diagnosis of mucormycosis is suggested clinically by finding necrotic tissue and pus in a patient with diabetes mellitus or a malignant neoplasm. Confirmation of the diagnosis is achieved by demonstrating broad, nonseptate hyphae with right-angle branching and parenchymal invasion in a biopsy specimen. Genus and species identification requires culture of the fungus and is beyond the level of expertise of most hospital microbiology laboratories.[3,5]

Successful treatment of mucormycosis consists of early diagnosis, intensive systemic antifungal therapy, aggressive surgical debridement and control of the underlying disease. Because the fungus rarely is cultured from readily accessible bodily fluids (blood, cerebrospinal fluid, sputum, urine) early tissue biopsy is advocated.[5]

Despite variable in-vitro sensitivity results, amphotericin B remains the systemic antifungal agent of choice for treatment of mucormycosis. A daily dose of 0.7 mg/kg is recommended until the patient improves and then the same dose is administered every other day. The optimal total amount of amphotericin B required for cure is unknown but 2 to 4 g have been utilized for serious infections.[12]

Early and often repeated surgical resection of all devitalized and gangrenous tissue is urged. The underlying disease should be controlled and iatrogenic ummunosuppressive therapy reduced or discontinued.[5]

The prognosis of mucormycosis is dependant on a number of factors including underlying disease, use of systemic antifungal therapy, surgical excision of infected tissue and early diagnosis. In one series diabetic patients displayed an improved prognosis over patients with leukemia.[13] The use of amphotericin B has increased the survival rate as has early and thorough surgical resection of involved tissue.[5] Lastly, early diagnosis by allowing institution of appropriate medical and surgical treatment is associated with an improved prognosis.[3] In our series despite use of amphotericin B in all patients, the only one who survived underwent surgical resection of infected tissue. ❑

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Tarsal Tunnel Syndrome

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Ankle and foot pain; night pain; tingling and numbness in the heel, foot, and leg, as well as generalized lower-extremity weakness are all symptoms of diagnoses ranging from sprained ankles and tendonitis to lumbar-disk injuries and diseases. Tarsal tunnel syndrome (TTS) is one diagnosis in which all or one of these symptoms as well as others may be present. Until recently, TTS has been commonly misdiagnosed. This is probably due to the wide variety of symptoms experienced with this syndrome and the lack of clinical awareness of diagnostic procedures.

An entrapment of the posterior tibial nerve was first described by Pollock and Davis[1] in 1932. Years later, in 1962, Keck[2] and Lam[3] reported similar findings with the posterior tibial nerve entrapped beneath the flexor retinaculum or laciniate ligament and referred to it as the tarsal tunnel syndrome. Ricciardi-Pollini[4] described TTS as a peripheral neuropathy caused by the compression of the posterior tibial nerve and/or its terminal branches at the ankle. It is characterized by pain, paresthesia, and sensory loss in the distribution of the terminal branches of the posterior tibial nerve.

TTS has more recently been divided into anterior TTS, which involves compression of the deep peroneal nerve at the inferior extensor retinaculum, and medial or posterior TTS, which involves posterior tibial nerve compression,[5,6] which is more common.

TTS is not as commonly diagnosed in the upper extremity as its counterpart, the carpal tunnel syndrome (CTS), which is compression of the median nerve at the wrist. The growing number of case reports[4,7-10] appearing in the literature suggests that TTS occurs more frequently than expected, but that perhaps it is more difficult to recognize than CTS. Consequently, it is extremely important to gather all the necessary information to obtain a differential diagnosis.

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ANATOMIC CONSIDERATIONS

In order to understand the peripheral manifestations of TTS, it is essential to understand the anatomic relationship of the structures within the tarsal region. The tarsal tunnel has rather obscure limits. It begins at the inferior surface of the medial malleolus as the crural fascia begins to thicken, forming the unyielding "roof" of the fibro-osseous tunnel known as the flexor retinaculum. The tunnel ends where the medial and lateral nerves enter or pass through separate openings in the medial superior origin of the abductor hallucis muscle.

Separate fibro-osseous compartments or tunnels are formed by the flexor retinaculum for the structures that pass below the medial malleolus (ankle). These structures include the posterior tibialis tendon, the flexor digitorum longus tendon, a neurovascular bundle, and the flexor hallucis longus tendon. The neurovascular bundle lies between the compartment for the flexor digitorum longus tendon superiorly and the flexor hallucis longus tendon inferiorly with a surrounding layer of fatty tissue. A thin layer of fibrous septa courses through the fatty tissue from the underlying surface of the retinaculum and blends with the periosteum of the calcaneus, forming the fibrosseous tunnel for the posterior tibial nerve.[2,3,11-13]

The relationship and close proximity of the structures within the tarsal tunnel emphasize that there is no room for excess accumulation of adipose tissue, fibrosis of the retinaculum, tenosynovitis, joint deformity, or fixation of the nerve to bone. Any or all of these situations can cause compression, traction, or edema of the posterior tibial nerve and its branches, resulting in the symptoms of TTS.

As it courses through the tunnel, the posterior tibial nerve divides into the medial, lateral, and calcaneal branches. The branching into the medial and lateral plantar nerves usually occurs within the tunnel with

the calcaneal branching occurring proximal to the tunnel or multiple branching occurring both proximal to and within the tunnel.[13] Some of the calcaneal branches pierce the retinaculum to innervate the medial aspect of the calcaneus, while others continue through the tarsal tunnel to innervate the plantar aspect of the heel.[14] If the calcaneal nerve branches proximal to the tunnel, the symptoms of TTS may spare the heel.

The medial and lateral plantar nerves exit from the tunnel either through separate fibrous openings or at times lie contiguously in one canal.[11,14] The medial plantar nerve passes by way of a canal superior to the abductor hallucis muscle belly and is bound above by the calcaneonavicular ligament.[14,15] The lateral plantar nerve passes posteriorly, with its medial superior boundary formed by the origin of the quadratus plantae muscle on the calcaneus.[14] The area of exit may be altered by the fact that the branches may often exit by piercing the abductor hallucis muscle just distal to the retinaculum.

The medial plantar nerve is the largest branch and is often compared with the median nerve in the hand. It innervates the abductor hallucis, flexor digitorum brevis, flexor hallucis brevis, and the first lumbrical. Its sensory distribution is the dorsal and plantar surface of the first, second, third, and medial half of the fourth toe and the medial aspect of the plantar surface of the foot anterior to the calcaneus.[11,14,15]

The lateral plantar nerve is the smaller of the two plantar nerves and is often compared with the ulnar nerve of the hand. A superficial and deep branch innervates the intrinsic musculature of the foot, consisting of the quadratus plantae, abductor digiti, flexor digiti quinti brevis, opponens digiti quinti, adductor hallucis, three plantar interossei, four dorsal interossei, and three lateral lumbricals. It provides sensory innervation to the lateral half of the fourth toe, the fifth toe, and the plantar lateral aspect of the foot.[11,15]

ETIOLOGY

Unknown etiology

According to DiStefano et al[14] and Kuritz et al,[15] a large percentage of tarsal tunnel surgical releases are successful but have no abnormalities found during surgery. DiStefano et al[14] reported that 24.3% of the patients studies had no abnormalities detected at the time of surgery, but were symptom-free postsurgical decompression. This emphasizes the relationship of close proximity within the tarsal tunnel and the idea that there is no room for even the slightest abnormal pressure.

Trauma

In approximately 50% of TTS patients, a specific traumatic cause can be identified.[16] This might include fractures of the tibia, calcaneus, metatarsals; dislocations of the ankle; crush injuries; contusions; or chronic ligamentous sprains resulting in soft-tissue hemorrhage.[5,11,14,15,17] It may also occur postsurgically following osteotomies, Achilles tendon lengthening or shortening, or bunionectomies.[11] All of these traumatic injuries have in common secondary fibrosis and thickening of the retinaculum and fibrosis of the septa.[11]

Anatomic factors

The anatomic factors causing TTS can be divided into the following seven categories:

1. The fibro-osseous septal compartments for the structures within the tunnel limit the capacity of the space to adjust to changing dimensions of its contents.[11]

2. The areolar tissue is often very dense and binds the structures under the retinaculum. As a result of this thick tissue, compression can occur very easily especially when edema is present.[11]

3. Disease, aging, and trauma may cause the retinaculum to undergo fibrotic changes and connective tissue proliferation causing compression of the nerve and vessels beneath it .[5,11,14]

4. A fibrous opening in the abductor hallucis muscle may cause compression of the nerve as it passes through.[11,14]

5. Vascular factors, such a tortuous, dilated, and engorged veins, as well as the presence of an arterial arch over the lateral and medial plantar nerves, may add compressive factors.[11,12,14-16]

6. An anomalous, hypertrophied, or accessory abductor hallucis muscle may contribute to compression or entrapment of the medial or lateral plantar nerves.[11,12,14-16,18]

7. Abnormal functional or structural abnormalities of the foot in gait is a factor often neglected in the literature.[18] Valgus deformity or malalignment of the heel associated with excessive pronation of the forefoot may tighten the retinaculum or change the relationship of the abductor, placina increased tension on the neurovascular structures.[11,12,14,16,19] Heel varus with compensatory forefoot pronation on weight bearing may cause narrowing of the tarsal tunnel and, thus, tibial nerve entrapment.[15,19]

Tumor

Any type of space-occupying lesion or neoplastic swelling in the confines of the narrow tarsal tunnel will cause excess pressure on the neurovascular structures within it.[8,9,11,14,18] Janecki and Dovberg[8] reported the first case of TTS caused by a neurilemoma of the medial plantar nerve within the tarsal tunnel. An intraneural lysis was performed with immediate relief of the symptoms. Two months later, the symptoms returned. A second surgery was performed and no recurrence of the neurilemoma was found. Decompression of the medial plantar nerve was satisfactorily performed, and the defected nerve was protected with adipose tissue

from a surrounding area. Two years postoperatively, the patient was completely asymptomatic and able to carry on normal daily activities.

Inflammation

Inflammatory arthridities comprise another group of systemic disorders accountable for the development of TTS.[18] There are many studies that support the incidence of CTS in rheumatoid arthritis, ankylosing spondylitis, and diabetes mellitus. Common sense and some recent studies would dictate an analogous situation to exist in TTS.[18] Chronic tibialis posterior synovitis is a common inflammatory condition in athletes that may precipitate this syndrome.[11] Thrombophlebitis, leprosy, regional migratory osteoporsis, and diabetic neuropathy are other, rarer causes of TTS.[11,14,15,18,19]

Other causes

Pressure and swelling in the tarsal tunnel may be caused by illfitting shoes, improper training surfaces, and poorly planned training progressions. Fluid retention, rapid weight gain, and aging may play a role as minor precipitating factors.[11,14,15]

PATHOLOGY

TTS has been described by many as a compression neuropathy of the tibial nerve as it passes beneath the flexor retinaculum along the medial aspect of the ankle and the medial and lateral nerves and their branches as they pass just distal to and through the retinaculum.[3] Local nerve ischemia or axonal demyelinization due to external pressure is the mechanism responsible for loss of various neural functions in a compression neuropathy.[11,12,15]

In 1984, Oh et al[20] conducted a study indicating that focal segmental demyelinization was the primary pathologic process in TTS. Denny-Brown and Brenner[21] first demonstrated the pathologic changes seen with compression and then associated the degree of nerve damage with the clinical findings. Duration of symptoms and rate of recovery are related to the extent and degree of nerve change secondary to pressure.[12,15]

In the early stages of nerve compression, the nerve segment develops localized edema, cellular infiltration, and myelin vacuolation (deterioration). These alterations are defined as first-degree damage and are readily reversible with no degeneration or loss of continuity of the nerve fiber. Proprioception and motor functions are more susceptible in first-degree nerve injury than are the functions of touch, pain, and sympathetic activity. Second-degree nerve injury occurs after prolonged localized pressure; the clinical and microscopic picture changes, and the prognosis becomes less optimistic.15 Moderate axonal damage occurs, progressing to wallerian degeneration and a paresis and wasting of the intrinsic musculature, with complete loss of motor, sensory, and sympathetic function.[12,15] Recovery from this nerve injury occurs, but is delayed while new axonal growth to the structures innervated distal to the level of the compression is occurring.[12]

Symptoms are extremely variable, with the most common being diffuse pain and a burning sensation in the sole of the foot, the great toe, and along the medial aspect of the foot.

Alteration of nerve function in most patients is most likely the result of local nerve ischemia as well as direct pressure on the nerve fibers. The symptoms of nocturnal and transient pain and paresthesia, which are often relieved by massage or ambulation, may be explained by transient episodes of nerve ischemia or compression. Muscle atrophy or weakness, as well as prolonged numbness, may suggest structural changes within the nave secondary to the direct pressure. Motor function to the musculature and recovery of conduction velocity may require several weeks or months to recover and, in some cases, may be incomplete.[12,15]

CLINICAL PRESENTATIONS

The clinical findings, duration of symptoms, and rate of recovery are related to the site, extent, and degree of compression of the tibial nerve or its branches. The onset is normally slow and insidious, although rapid onset may result where a past history of trauma is reported. Men and women are equally affected, and medial TTS has been reported in patients aged 7 through 76.[11,12]

Symptoms

Symptoms are extremely variable, with the most common being diffuse pain and a burning sensation in the sole of the foot, the great toe, and along the

medial aspect of the foot. The pain is often experienced at rest with increased intensity at night and is described as sharp, stabbing, and cramping pain that is often relieved by massage or ambulation. Night pain may be caused by ischemia due to venous stasis and engorgement occurring during sleep. Others may describe the pain as dull but aggravated with activity, especially prolonged walking. Numbness, hypersensitivity, and paresthesia are often described in the foot, in the toes, or over the medial distal calf, and at times as far proximal as the gluteals and low back. Some patients describe their foot as feeling swollen or tight, while others complain of having the sensation of impending cramps along the arch of the foot.[12]

Signs

An actual sensory loss in the distribution of the medial and lateral plantar nerves, as well as the calcaneal branches, singly or in combination, is manifest as a decrease in two-point discrimination and hypoesthesia to pinprick.[12] A positive Tinel's sign or nerve-trunk tenderness can be elicited over the tarsal tunnel or medial arch of the foot. Mann16 suggests percussing along the course of the tibial nerve and its branches to determine tenderness along the nerve and beneath the retinaculum. The percussing may create a positive Valleix phenomenon, nerve-trunk tenderness proximal and distal to the area of compression.[11, 12, 14-16, 19] Application of a venous tourniquet to the lower extremities may reproduce the symptoms on the involved side due to temporary congestion and ischemia as a result of venous occlusion.[11, 15] Sustained direct pressure held for 60 seconds or more may also reproduce the symptoms.[11] Maintaining the ankle in dorsiflexion with inversion and medial rotation should reproduce the symptoms within 30 seconds.[11, 14, 15] Mild weakness of the intrinsic musculature of the foot is difficult to detect, but will occur if motor involvement is present. Weakness of toe flexion at the metatarsalphalangeal joints and atrophy of the abductor hallucis muscle are more easily detected and are usually recognized in the advanced stages of a compression neuropathy. Some patients will demonstrate a fullness or hypertrophy of the medial longitudinal arch rather than atrophy.[12] The presence of motor involvement suggests structural changes within the nerve and a much less favorable prognosis. Radiographic examination may demonstrate evidence of degenerative arthritis, old fractures, spicules, or accessory ossicles that could be causing compression within the tunnel.[15] Finally, if the nerve is firmly adhered within the tarsal tunnel, stretching it by performing a passive straight-leg raise with added dorsiflexion should reproduce the symptoms.

ELECTRODIAGNOSTIC STUDIES

Nerve conduction studies and electromyography are the definitive tests for TTS. Oh et al,[20] in 1984, documented that slow nerve conduction velocity and the dispersion phenomenon (prolonged duration of compound nerve action potentials) are the most prominent abnormalities in sensory nerve conduction in this syndrome. To be reliable, the nerve conduction examination must demonstrate a significant variation between responses of the opposite extremity. In motor nerve conduction studies, the latency must be greater than 6.1 ms and 6.7 ms, respectively, for the medial and lateral plantar nerves in order to be considered abnormal or indicative of a compression neuropathy.[12, 14, 15] Nerve conduction studies to both the abductor hallucis and the abductor digiti minimi are important as only one may be abnormal. Electromyographic studies of both the abductor digiti minimi and the abductor hallucis should be conducted to determine if any fibrillation potentials are present. It has been stated that electromyography is most sensitive with minimal early axon change.[12] Kaplan and Kernahan[22] reported in 1981 that electrodiagnostic evaluation has shown that reduced amplitude and increased duration of motor-evoked potentials are more sensitive indicators of the presence of TTS than is distal motor latency.

THERMOGRAPHY

Sometimes the electrodiagnostic studies are normal in spite of significant complaints of pain, numbness, tingling, etc. When this occurs and one desires to document the presence (or absence) of TTS, thermography may be utilized.

Thermography is a non-invasive study of heat changes of skin dermatomes throughout the body. Thermography can be done either electronically or by liquid crystal. If done with the liquid crystal using the Flexi-Therm contact technique, it utilizes a unique elastomeric thermally sensitive film that can be readily contoured to display the thermovascular patterns of the body.

During the procedure the technologist will change "cassettes" for different body parts. Each cassette is a precalibrated representation of temperature difference. The temperature difference or Delta T with liquid crystal will vary from cassette to cassette. These cassettes are a highly sophisticated, new, innovative and precisely calibrated piece of equipment that are extremely sensitive to heat changes.

The electronic technique does not require direct contact, but utilizes a computerized thermal sensing camera to detect small variations in surface temperature.

It is important to remember that these studies can only confirm a dysfunction; the presence of a physiologic nerve block or irreversible damage cannot be deter-

mined. It cannot be predicted whether the damage has progressed to the point that spontaneous recovery will or will not occur.

DIFFERENTIAL DIAGNOSIS

TTS is usually considered a focal surgical lesion. There are a number of nonsurgical cases that may mimic the clinical presentation of TTS. Therefore, a differential diagnosis rules out those nonsurgical causes of these symptoms and directs those patients to the appropriate, nonsurgical care. In order to do so, the physician/pedorthist should conduct a thorough history and physical examination, including an orthopaedic and biomechanical evaluation. If a complete history is obtained and positive physical findings are elicited and then correlated with the electrodiagnostic studies, there should be little doubt as to whether a true TTS exists. Misdiagnosis is common, however, since pain or paresthesia in the foot may be associated with numerous conditions, including radiculopathies, neuropathies, tendonitis, and chronic ligamentous strains.[11] Kaplan and Kernahan[22] reported that it is possible to differentiate between TTS and lumbosacral nerve root radiculopathy by following the above procedures. They do confirm that the differentiation may be difficult, however, if only the anterior primary rami of the fifth lumbar or first sacral nerve roots are compromised. If this is the case, the patient may have signs and symptoms very similar to those of TTS.

If a complete history is obtained and positive physical findings are elicited and then correlated with the electrodiagnostic studies, there should be little doubt as to whether a true TTS exists.

TREATMENT

Nonoperative

Medications

Oral, nonsteroidal anti-inflammatories may be used when inflammation exists. Local use of steroids may be warranted, but it is important to avoid injecting the nerve itself. High doses of vitamins B6, C & E sometimes are helpful.

Therapeutic modalities

With acute onset of symptoms, therapeutic modalities may prove successful in the reduction of edema and fibrosis.

Modalities may include ice, ultrasound, contrast baths, electrical stimulation, acuscope, intermittent compression in elevation, and shortwave and microwave diathermies. Because of the chronic condition of TTS and its often late presentation, therapeutic modalities provide limited success.[11]

Modification of activities

The activities of the active patient and the athlete in particular must be modified. Modification of activity is combined with other therapeutic modalities. The athlete is advised on training techniques such as distance changes, terrain, and frequency and intensity of training sessions, as well as proper warm-up and cooldown procedures. For example, if an athlete complains of some symptoms similar to those of TTS, it would be advisable to first obtain an adequate history. If one finds through the history that this athlete, a runner, has recently experienced a sudden increase in his or her overall mileage and intensity of training, then the clinician should advise the patient to cut back mileage and intensity to nonsymptomatic levels and then slowly and progressively increase one of those variables successfully. Once that has been accomplished with no problems or symptoms, the other variable can also be progressively increased.

Modification of footwear and use of orthotics

When valgus or varus deformities are present, a correctional orthosis may be helpful. If edema is present, support hose or larger fitting shoes may prove beneficial. Tight-fitting athletic shoes or skates may aggravate the condition.[11]

Immobilization

A short leg cast or removable cast-brace orthosis may provide some relief, but should only be used as a last resort, prior to surgery.

Operative

Surgical exploration of the particular area may be necessary if conservative measures fail. Surgical release

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and decompression are the operative treatments of choice to free the nerve or nerves from fibrous entrapment and may provide complete relief of the compression neuropathy as early as 24 hours postoperatively.[11, 22] During surgery, the retinaculum or laciniate ligament is completely divided; the nerve is freed from encompassing fibrous tissue; the branches are explored; anld, if possible, they are mobilized distal to the abductor hallucis.[11, 14] Each hiatus for the medial and lateral plantar nerves is checked and slit if necessary. If an accessory abductor hallucis is found, it is excised. All constricting fibrous bands are released and care is taken not to disrupt the calcaneal branches as heel numbness may occur.[11] Finally, if torturous veins are present, they may be removed following high and low ligation.[11]

Rehabilitation

Following surgery, the skin is closed and a pressure dressing is applied over the wound. Gentle range-of-motion exercises and softtissue and joint mobilization techniques, as well as partial weight bearing with crutches, are begun early in order to help prevent adhesion formation.[11, 12] Quadricep setting and straight-leg raises, as well as other nonweight-bearing, lower-extremity exercises, are advised in order to prevent atrophy. Nonsteroidal antiinflammatories may also be prescribed to minimize swelling. At approximately three weeks, more aggressive activities such as ankle, knee, and hip proprioceptive neuromuscular facilitation patterns; balance-board (BAPS) techniques; balancing, running, and resisted work on an ankle exerciser, are incorporated in the exercise program. Running, jumping, hopping, and skipping can be added at approximately four weeks, progressing as tolerated and working within the limitations of discomfort and swelling.[11] An exercises bicycle is recommended as early as possible to enhance aerobic workout. The patient can usually begin use of the exercycle as soon as swelling ceases and,near-normal range of motion is achieved. This may occur as early as 1.5 to 2 weeks. Swimming is also recommended once the sutures have been removed and adequate healing has occurred. Obtaining an aerobic workout in a nonweight-bearing situation is the main purpose of a swimming program. Exercises utilizing the water's resistance can also be of great benefit. These may be kicking from the side of the pool using the knee and ankle in an extension and flexion pattern. Specific, ankle range-of-motion exercises, including dorsiflexion, plantarflexion, inversion, and eversion, use the water as resistance. Once the foot and ankle become stronger, a foot board or fin can be attached to the foot to increase the amount of water resistance.

Specificity of training is very important when an athlete is preparing for return to full activity in his or her sport. Therefore, simulated drills progressing toward full activity in game-like situations are imperative to full recovery. If an athlete is unable to respond or react quickly and correctly due to pain, fear, loss of proprioceptive or motor control, then he or she is not ready for athletic participation and needs continued training and therapy. This, of course, applies equally to specific avocational or job requirements and should be handled identically. ❑

Inability to respond or react quickly and correctly due to pain, fear, loss of proprioceptive or motor control means that he or she is not ready for athletic participation, specific avocational or job requirements, and needs continued training and therapy.

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aux•il•ia•ry

(og zil'yer ē) ***1.*** *offering or providing help.* ***2.*** *a group or organization that assist or is supplementary to a large one.* ***3.*** *supplementary.*

The crowded Chicago skyline had faded behind us. The plane had turned eastward and was cruising over the beautiful flat midwest farmland enroute to Cincinnati and on to Birmingham. My friend and I were returning from Confluence I. It had been an exceptionally good AMAA meeting, and I could sense my traveling companion formulating plans for her presidential year as we were discussing the various meetings we had attended. She turned to me and asked, "What do you see as the role of the auxiliary?" I knew this very capable leader, as all other county leaders, was struggling with how to make the local auxiliary a really strong and effective organization.

"The auxiliary is a support system for the medical society and for the medical families in a community." I replied. "It is an organization which assists the medical society in carrying out health projects or sponsors health related projects with the medical society's approval. The auxiliary can be a vital force in advocating political awareness and promoting political education."

The AMAA 1988-89 Long Range Planning Committee stated the role of the auxiliary very simply: "the auxiliary exists as a source of help and support, not only to the medical profession but for the medical family and the community at large."

Auxiliaries across the state are making plans now for a new auxiliary year. In summer board meetings and planning sessions they are examining ways to implement the role of the auxiliary in local communities. Ideas from confluecnes, conventions, the AMAA Project Bank, and other auxiliaries are being explored for adaptation and use on the county level. Projects to promote and assist in providing quality health care in local communities are being drafted. The stress of medical families, the growing concerns and needs of the elderly, adolescent health, AIDS, and breast cancer are just a few of the subjects A-MASA county leaders will be emphasizing in programs next year.

These Programs and projects cannot be implemented without a strong membership of all ages. and with all kinds of experiences and qualifications to share. The auxiliary needs your spouse to MAKE A DIFFERENCE in the year ahead.

Is your spouse a member of this very important support group? If your answer is no, the auxiliary needs your help in recruiting her membership in the 1990-91 year. If she was once an active auxiliary member but is no longer, she, and all other potential members, will find a warm reception, special fellowship, and a unique opportunity for service in one of our organized auxiliaries. Mrs. Kermit Mitchell (Margaret), 704 Pickwick Street, Sheffield, 35660. (383-1302) is the A-MASA Membership Chairman, waiting to assist your spouse in joining the auxiliary. If there is not an organized auxiliary in your county, one may be organized with your medical society's approval. Margaret is anxious to help.

Mrs. William Curry (Julie), P.O. Box 14. Carrollton, 35447 367-2234 and Mrs. Eugene Lammers Cecilla, P.O. Box 70, Reform, 35481 (375-820) are A-MASA Members-at-Large Chairmen. They will be working to recruit spouses in unorganized counties this year. Please take this Journal home and share it with your spouse. Encourage her to contact these committee members about auxiliary membership for the coming year.

Membership in the AMA Auxiliary brings such benefits as booklets on the special concerns of physicians' spouses, including information of professional liability, impairment. marriage, and the training years;

• FACETS, a bimonthly magazine for and about physicians spouses that covers topics ranging from the medical family and physicians children to health and legislative concerns;

• HORIZONS, a bimonthly newsletter for resident physicians spouses and medical students' spouses that highlight topics of special concern in the training years;

• the Professional Skills Development program through which educational experiences are computerized for instant retrieval when needed for employment or community opportunities;

• a comprehensive insurance program that helps to increase your family's financial security.

The AMA Auxiliary also provides tools and training for volunteer and personal skills development such as the Project Bank, a nationwide clearinghouse for projects; seminars that focus on volunteer and community involvement; intensive leadership training twice a year for the leaders of local medical auxiliaries; guidelines and information on almost every area of volunteer and community leadership.

Auxiliary membership in the county, state, and national organizations don t let your spouse start the year without it! ❑

NUTRITION COUNSELING...

Continued from page 39

SUMMARY

Physicians are in a unique position to identify needs for nutrition intervention for their ambulatory patients with health problems or significant risk factors. Because of the time demands on primary care physicians, effective nutrition counseling can best be provided for patients through the partnership of physicians and dietitians. The physician should refer patients to a registered and licensed dietitian who also has the personal and professional qualities of an effective counselor. The primary goal of this partnership is enhanced quality of care for patients through better understanding of the food and nutrition care aspects of their health problems. This joint venture will also promote better utilization of physician time and improved utilization of the dietitian as a health team member in ambulatory care. An effective physician-dietitian referral system yields a win-win relationship for all concerned. ❑

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema.* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General. Impaired Renal Function.* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia. Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia. In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients.

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension. Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia. Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia. Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions.

Hypotension: Patients on Diuretic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents. VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium. VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium. Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C. There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalaprit crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers. Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION. The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE. The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Oepression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and OOSAGE ANO AOMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema. Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen. In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit. Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests. Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Oosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment. The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure. VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Oosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia. In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See OOSAGE ANO ADMINISTRATION, *Heart Failure,* WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486 J9VS61R2(819)

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September 1990 Vol. 60, No. 3

Alabama Medicine

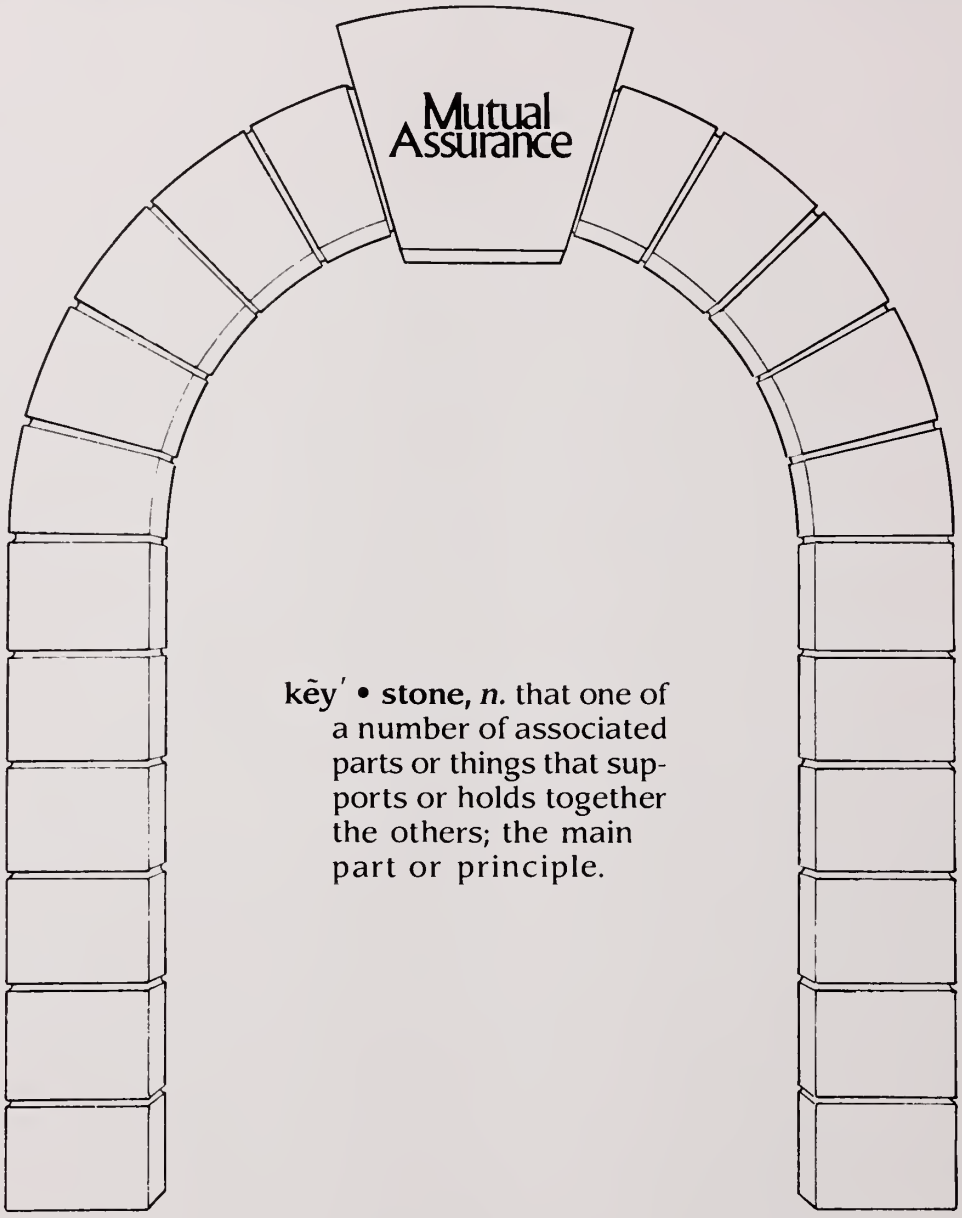
JOURNAL OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

"...Retrospective denial is based, by definition, on retrospective judgment, a notoriously illogical process of thinking..."

The Return of Agamemnon or What Quality Control Brings

page 14

The Keystone of Your Protection



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In This Issue

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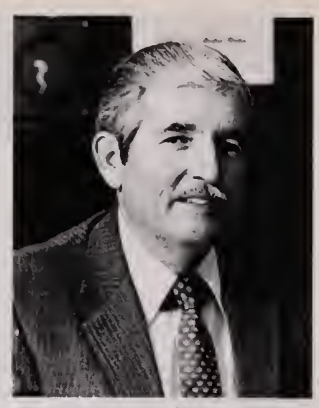

S. Lon Conner
Executive Director, MASA

Short-Lived Peace Dividend

Some months ago in this space, I commented on how the fortunes of U.S. medicine are intricately linked with the fortunes of the world.

No better example can be seen than the Thief of Bagdad's mugging of Kuwait and the response of the United States and the United Nations.

This came at a time when there was much talk in Congress of the "peace dividend"—those unhatched eggs of the military cutback supposedly made possible by the reduced threat of the Soviet Union, the implied reduction in NATO expenses, and the fantastic year of quiet revolutions in Eastern Europe.

Almost everyone, with the possible exception of the defense contractors, rejoiced at this totally unexpected chain of events. The world seemed a much less dangerous place for a few months, until Saddam Hussein demonstrated how well versed he had become in the lessons provided by Adolf Hitler.

The U.S. response was, to my thinking, splendid, totally necessary and itself a reminder that we had not forgotten Hitler's "annexations" either, nor how appeasement in the 1930s plunged the world into a far greater war than might have occurred had the free world drawn a line in the dust, as it has done in 1990.

We had pretty much dismissed the Middle East in our anxieties about the world. We knew that it would always be a trouble spot but since it had been that for thousands of years, there really wasn't a great deal we could do by military intervention to change the course of history.

Middle Eastern events, however, are magnified many times by the presence of so much of the earth's non-renewable resource, oil. If the principal export of Kuwait and Saudi Arabia had been bicycles, this would have been only a diplomatic note of protest, if that.

The prospect of higher energy costs was particularly troubling against the background of our sagging domestic economy, with leading economic indicators pointing to a long-delayed recession. But, at this writing, Congress and the President seemed no closer to agreement on tax revenues than they had been in early summer, when the President finally unread his lips and conceded that new revenues were needed.

That seems more problematic after the Iraq aggression and the serious threat of an economic downtum exacerbated by the additional impact of higher fuel prices. Energy taxes had been one of the proposals on the table; unlikely now, unless as a useful rationing tool. The sharply rising costs of energy presented the specter of that relatively rare event, inflation and recession at the same time, "stagflation," as the British used to call it.

Thus the peace dividend has been thrown into limbo by suddenly hawkish congressmen who were doves just a few weeks earlier. Such thinking as this began to resurface: can we really afford to curtail "star wars" research when Middle East madmen may be only years away from nuclear-armed ICBMs? While the B-2 bomber may no longer be critically needed against the Soviet Union, would not the stealth concept be highly valuable over the sands of Iraq? Is it wise to sharply reduce naval expenditures at the very time when seapower played such a large role in the viability of our challenge to Iraq? And so on.

The upshot is that the peace dividend, expected by some to be spent on greater funding for domestic programs such as Medicare, now looks feeble. White House budget chief Richard Darman had been toying with the idea of reducing by half the Bush Administration's proposed slash in Medicare budgeting, but that didn't last long. After the Kuwait invasion the proposed figures had been restored to something very close to the earlier chop, $6 to $7 billion. Additionally, the White House was making ominous noises about similar slashes in the Federal Employee Health Benefits program, in CHAMPUS, in the Veterans Administration health care budgets and so

Continued on page 28

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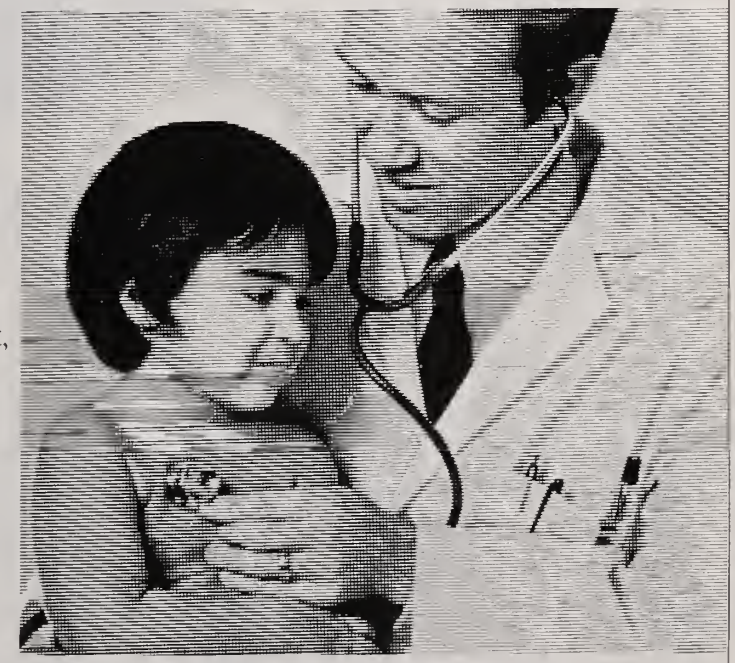

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PRESIDENT'S PAGE

T. Riley Lumpkin, M.D.
President, MASA

The Wheel of Medicine

This Wheel of Medicine had been rolling and gaining momentum until the mid-60s, when Medicare first came on the scene. Now the wheel is bogged down in the road of bureaucracy with regulations the consistency of mud slowing its progress. The people are the ultimate losers.

First let's define the wheel of medicine. At the hub is organizational medicine: The Medical Association of the State of Alabama; The American Medical Association. The spokes are the myriad other medical groupings such as specialty societies (The Alabama Academy of Ophthalmology, the Alabama College of Physicians, the Society of Intemal Medicine, the American College of Surgeons); the various county medical societies like the Randolph County Medical Society; and all the various medical and surgical specialty groups and societies.

They add great strength and mobility. At the rim of the wheel we find the real purpose of the wheel, our patients. Patients must always come first.

But a wheel, real or metaphorical, is meaningless form without function unless it is provided a fixed point about which to rotate. The axle of medicine, I believe, is the long and honored tradition, the *ethos* of the healing art. The dictionary definition of ethos tells only part of it: ". . . the character, sentiment, or disposition of a community or people; the spirit which actuates manners and customs, esp., moral attitudes, practices and ideals."

The medical ethos, founded as it is on the dignity and worth of the individual, is closely entertwined with the birth and evolution of the Judeo-Christian concept of the primacy of the individual and the overriding importance of the human condition. All our laws and beliefs as Americans are grounded on this noble concept of man.

And just as medicine was shaped by the emergence of this belief, so did medicine symbiotically shape the growth of the ideals on which the Westem democracies were founded. Indeed, medicine and the moral foundation of govemment are as closely linked as the twin strands in the DNA double helix, and just as fundamentally inseparable.

Whenever we speak of the "doctor-patient relationship," we are, consciously or unconsciously, referring to its origins in the ethos of our art and our civilization. Whether we realized it at the time or not, when each of us was called to medicine, a major ingredient in that decision was our respect, even awe, for the ethos of the profession and its quintessential dedication to the service of man.

Just as America is even now looking back to its roots and founding philosophy to rediscover what kind of people we are and why we believe what we believe about truth and justice, so is medicine trying to emerge from a terrible period of noisy distractions to turn back to the axle around which everything revolves.

When we hear public expressions of dissatisfaction, even contempt, for doctors, we should remember that

an important element in these unpleasant observations may be that we have been weighed against the historical image of the physician and found wanting. Our too frequent response is simply anger and resentment.

Perhaps we would serve our profession better if, instead, we tried some soul-searching: if any among us violates the historic image of the physician, is it not because that image has a grandeur that we may have forgotten?

Most of our patients appreciate, respect and trust their individual physician. They want five basic considerations from each of us as physicians. And when physicians are patients (on the other side of the bed, so to speak) we want the same considerations as all patients.

These are:

- Quality care; we want someone who is good at what he or she does.
- Continuing care; not just episodic care but an ongoing, continuing care.
- Accessibility; a physician that is readily available when the need arises.
- Understandable care; this means good patient education with the patient involved in his own care and the use of understandable lay terms with no medical double-talk or gobbledygoop; straight-from-the-chest, honest-to-God, plain American.
- Care that is reasonable in cost; we do not want to break the insurance company or invite the insurance company to raise our premiums next month. We want an honest charge of a reasonable figure without any inflated shadowings that smell of charlatanism.

We should put ourselves in the patient's place, or on the other side of the bed, ever so often to get the feel of isolation that sometimes washes over the patient with the hospital visit; the rapid-fire questions and quick decisions without complete understanding by the patient or the family. We are all busy, but a little more time at the front end will save you time at the other end.

We should go sit in the waiting room on a regular basis to get the feel of what patients have to put up with while waiting to get into the office to see a physician. If a patient breaks an appointment and cannot get there on time, he should, by common courtesy, inform the physician's receptionist of his inability to keep the appointment, the sooner the better.

Can we as physicians do less? If we are tied up in the emergency department or in surgery, should we not call our office and give them notice of the delay? You may be out of the office till 10 a.m. rather than at 8 a.m. Giving notice provides patients time to adjust and arrange other appointment times. The patient's time is just as important to him as our time is to us.

Many opportunities are available to us as physicians to see the patient's side. We should take the time to explore the situation and at least attempt to view what has happened with the feelings and emotions of the patient.

Is the apprehension and fear of a disease or condition due to lack of knowledge about the outcome of the disease? Or is it the possible suffering to the individual that may result from the disease?

On the other hand, we need to look deeper, from the patient's standpoint, and see if this dread may be more from worry about the inability to be functional, revealing that the real reason is the affect on the patient's family; that he is unable to provide for them as before and may become a liability to the family rather than its breadwinner.

Regardless of what we may think of the patient as a person, we must appreciate and understand where the patient is coming from: What has caused his acceptance of our medical opinion or, on the other hand, his inability to comply with our recommendations, for reasons of his own? These reasons, may derive from various and sundry pressures from his family and his socioeconomic position. We may be unable to comprehend these from our viewpoint. So we must honor the patient's opinion and decision and work within the framework of his financial, social and familial circumstances.

As physicians we are bound not only by the voluntary oath of Hippocrates and the wisdom of Maimonides but by the moral and ethical parameters taught to us by our parents and those around us in society and the church.

Civilization as we know it is living together under laws that promote the common good. And these laws are based on the authority that was self-induced as a set of standards or guidelines placed in the hands of a few to guide and and protect us all.

Personal morality is important for each of us toward this common good. Someone has to be in charge and offer decisions for the group. Otherwise we have only confusion, chaos, suffering and anarchy.

As physicians we must be understanding and compassionate; a guide along the highway of health; an authority by knowledge applied only with wisdom of understanding. Each of us holds a small part of the future of medicine and of mankind in the palm of our hands. I hope and pray that we continue to use this knowledge wisely.

We are indeed fortunate to be given so great a gift as healing. The greatest joy in this world is the giving of this gift to one in need.

With continued concern and care, each of us pushing the wheel of medicine can and shall triumph over the mud of bureaucracy and continue to provide the best medical care in the world to all the people of the great state and country. ❑

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References

1. *USP DI Update, September/October 1988, p 120.*
2. *Br J Clin Pharmacol 1985;20:710-713.*
3. *Data on file, Lilly Research Laboratories.*
4. *Scand J Gastroenterol 1987;22(suppl 136):61-70.*
5. *Am J Gastroenterol 1989;84:769-774.*

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Brief Summary. Consult the package literature for complete information.

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3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage. Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Orwell + 6 Years

Richard H. Esham, M.D.

The Following is from an address by Dr. Esham before the semi-annual professional staff meeting of the University of South Alabama College of Medicine, May 22, 1990. Dr. Esham, Mobile internist, is a member of the Board of Censors and the State Board of Medical Examiners. He was introduced by Eugene Quindlen, M.D., chief of neurosurgery and chief of medical staff, USACOM. For the research provided for this paper, Dr. Esham thanks: Ms. Annette Van Veen Gippe, director of the AMA division of Data Resource Development, for information on the AMA Physician Master File; Ms. J. Katherine Hill, assistant executive vice president, Federation of State Medical Boards of the United States, for information on the Federation Disciplinary Data Bank; and Ms. Trish Shaner, J.D., Staff Attorney, Alabama State Board of Medical Examiners, for information on the National Practitioner Data Bank.

What I chose to do in this brief period of time tonight was to talk about physician credentialing and the tracking of physicians. Many of you may be aware of the National Practitioner Data Bank, which was to have gone on-line Sept. 1.

I want to compare that with the already existing data banks for physicians. Gene [Dr. Quindlen] asked me not to scare you. I got to thinking about a book I read some years ago, *1984*. Many of you, I'm sure, are familiar with this book. After I finish my brief remarks, we may all agree that George Orwell wasn't very far off in his prophecy.

The AMA Physician Master File is a credentialing resource. It is a biographical record that is created when a medical student begins medical school, or when a foreign medical graduate enters an AGME-accredited residency. This biographical record will continue through the professional life of that physician.

It is an important record in that it is verified primary source data. In other words, the information about graduation from medical school comes directly from the school, and the same is true of staff credentialing in hospitals, medical societies, the National Board of Medical Examiners, and state licensing agencies.

The ECFMG, Surgeon General, the American Board of Medical Specialties – all provide the AMA Master File with primary source information on you and me. Physicians themselves, as you may remember, provide information that is primary source information from you, the type of practice you are in, with whom you are employed, and medical groups as well will provide that information.

My parent organization, the Federation of State Medical Boards in Ft. Worth, provides disciplinary action against physician's licenses. The Federation Disciplinary Data Bank is not a biographical data bank. It is simply a computerized collection of disciplinary actions taken against physicians by member boards; all states in the union have member boards. The provinces of Canada participate and 6 of the 11 osteopathic boards. The information that is collected by the Federation Disciplinary Data Bank is a public record relating to license revocations, license probations, suspensions, denial of licensure, and other actions, including, interestingly enough, Medicare sanctions.

The National Practitioner Data Bank was authorized under Title IV, Public Law 99660, the Health Care Quality Improvement Act of 1986. A five-year, $15.9 million contract was awarded to Unisys, to establish and operate the data bank. The award was effective Jan. 1, 1989; the Data Bank was to go on line in September 1990. It is important to understand something of the operation of the National Practitioner Data Bank because this is somewhat different in that it is designed to log professional incompetence and professional misconduct. In the beginning, it will record data on physicians and dentists; later, all licensed health care practitioners will probably be included.

First, who must report and what must be reported to the Data Bank?

- Malpractice payments: Currently, your Alabama Board keeps up with that. That's not required, but we do keep up with it. We also monitor licensure actions in other states as well. The National Practitioner Data Bank requires that any entity, insurance company, self-insured hospital or self-insured physician or dentist that makes a payment on behalf of any licensed health care practitioner as a result of a claim or judgment for medical malpractice must report requisite data to the Data Bank and to the appropriate state licensing boards. This is where our Board will again be involved.
- Licensure actions taken by state medical and dental boards must be reported.
- Professional Review Actions: Clinical privilege actions by a hospital or other health care entity, such as an HMO, medical or dental group practice must report

certain adverse actions taken against a physician who has clinical privileges. Again, the actions to be reported are based on the practitioner's professional competence or conduct and must last longer than 30 days. Society membership actions must be reported if an adverse action is taken against the membership of a physician or dentist when that action was reached through a formal peer review process, and when the action relates to the practitioner's professional competence or professional conduct.

Who has access to this data? Who must query the Data Bank? All hospitals must query the Data Bank every two years regarding physicians, dentists, and other health care practitioners on their staff or those to whom they have granted clinical privileges. Hospitals also must query the Data Bank when they are considering an applicant for a medical staff appointment for clinical privileges. Hospitals may also query at other times, as they deem necessary.

Importantly, who may query the Data Bank?

- State licensing boards may query the Data Bank regarding a physician, dentist or other health care practitioner.
- Health care entities in addition to hospitals may query the Data Bank when they are entering employment agreements with physicians, dentists, or other health care practitioners.
- Under certain conditions, an attorney who has filed a medical malpractice action or claim against a hospital may query the Data Bank for information regarding a specific physician, dentist, or other health care practitioner who is also named in that action. However, this information will only be disclosed if the attorney submits evidence that the hospital failed to request information from the Data Bank as required by law; and the information may be used solely with respect to the medical malpractice action against the hospital.
- Individual physicians, dentists, and other health care practitioners may query the Data Bank concerning themselves.

Some general information:

- Individuals on whom a report has been made to the Data Bank will routinely receive a copy of the report.
- An individual may obtain his or her record at no cost; others authorized to obtain Title IV information from the Data Bank will be charged a fee.
- Aggregate data, which do not permit the identification of any particular health care entity, patient, physician, dentist, or other health care practitioner, will be available to interested parties. These data will be available about a year after the bank opens.

The Data Bank is currently conducting an educational program to inform interested parties concerning the requirements of Title IV. I do not plan to go into any further detail about the Data Bank. It gives us pause to reflect on George Orwell's book, *1984*, copyrighted 1949, in which he wrote of a completely bureaucratized society wherein man is but a number.

I'm beginning to wonder if we are approaching that.❑

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The Return of Agamemnon

Or What Quality Control Brings

Claude L. Brown, M.D.

Last week I went to a hospital meeting where the subjects discussed were quality control and the national data bank. I felt so ill when I got home that I had to talk for one hour with my dog. Man's best friend is considered to give unfailing loyalty, unrequited love, and aid in the pursuit of game and evil-doers. These are fine attributes but the principal canine role has not been clearly stated: the dog as therapist. Consider the traits of a good therapist: warmth, non-judgmental understanding, trustworthiness. The dog scores superbly in all of these. I know dogs who are better therapists than some trained analysts. Freud knew what he was doing when he kept his chow in the consulting room. The doctor needed all the help available in dealing with his unhappy patients. So did I.

While considering miserable processes that lead to unfavorable results my thoughts drifted to Greek mythology and the Trojan War. Disaster, betrayal, bloody revenge and assorted other horrors are always just around the corner in this arena. Here, with assists from Aeschylus and Euripides, is a short version of a piece of the old story:

To rescue from Troy the kidnapped Helen the Greek nation had assembled a tremendous invasion force and chosen Agamemnon, a tough Cromwellian soldier-king, to be its leader. A vast multitude of soldiers, sailors, animals, acres of supplies, camp followers and ships had gathered at Aulis, the port of embarkation in East Central Greece. All was poised for an incursion of the West into the East that would be as momentous as the landing of William the Conqueror on the beaches at Pevensey. But the wind failed: it either did not blow, or it blew from the north; with the dangerous currents and contrary winds the fleet could not sail.

The wind did not shift, it blew foul ceaselessly.

'It broke men's hearts,
Spared not ships nor people,
The time dragged,
Doubling itself in passing'.

It also ruined hygiene and morale; the army could not be kept so long in one place. Like McClellan in his Peninsula Campaign, Agamemnon was lingering too long on the Grecian shore, but unlike Little Mack the delay was not the commander's decision. At last, with the project deteriorating, Agamemnon consulted a soothsayer, Calchas, to ascertain the cause and cure of the adverse winds. The soothsayer who makes no comment is a natural loser; Calchas knew which side of his Ouija board was buttered. Whether he got his message via goat entrails, from a vision, or from the murmuring of the wind in the leaves he did get a clear reading and gave it straight to Agamemnon. The gods, he announced, had been offended (note for future reference how easily the gods get offended, and how the perpetrator often does not realize his sinning), and to placate them and obtain a favoring breeze to Troy they required the sacrifice of a royal maiden. Virgins, then as now, were not plentiful, but it was strongly urged that Agamemnon's eldest child, Iphigenia, would be eminently suitable. This was dreadful news. Agamemnon knew that the message, devastating to him, would be intolerable to his wife, Clytaemnestra.

However, after consideration, he agreed to the fateful demand of the gods; he wasn't commander of Overlord for nothing and his reputation was at stake. He sent word to his wife that Achilles, another Greek chieftain, wished to marry Iphigenia and that she and the daughter must come to Aulis for the wedding. Mother and daughter arrived and learned the horrible truth. Clytaemnestra reviled Agamemnon for employing such a terrible stratagem, and threatened him with vengeful disloyalty.

Iphigenia says:

'Fain am I, father, on thy breast to fall, After so long! Though others I out run For Oh, I yearn for thy face!'

She begs for her life:

'I was thy first born - first I called thee sire, And sat, thy child, upon thy knees the first, And we exchanged sweet charities of life.
—but thou forgetest and wouldst take my life'.

Later the girl comes to believe that her death will be a worthwhile sacrifice and refuses any attempt at escape. She walks of her own will to the funeral pyre and dies.

'So this man hardened to his own child's slaying, As help to avenge him for a woman's laughter, And bring his ship's relief

'The little maid who danced at her father's board, The innocent voice man's love came never nigh, Who joined to his her little paean-cry When the third cup was poured.'

So the north wind ceased and the Greek fleet sailed.

The Trojan War, with all its scenes of horror and heroism, lasted for ten years, and ended in a Grecian victory. Agamemnon "robed in steel and armies trembled at his wrath" has landed and is approaching his home city. A group of elders gathers before the royal palace and although they are happy at the heroe's return nevertheless whisper uneasily of Agamemnon's immolation of his daughter years ago.

The soldier is glad, indeed, to step foot on his native soil after his long, tumult filled absence. He portrays to the elders the grim victories won – the freezing winds and the withering heat of the Trojan plain, the pestilence and vermin that scourged them, the bravery and barbarity of his own and the Trojan armies. Clytaemnestra emerges from the palace and orders rich cloths and tapestries to be spread beneath the feet of Agamemnon's horses. She is proud, frightened, nervous, and with good reason for she has taken as her lover Aegisthus, and she most vividly recalls the death of Iphigenia. She says to Agamemnon:

"For you indeed the rushing fountains of my tears have run dry and there is no drop left — you may see how I sorrowed for the signals of your victory that ever tarried —"

Although she knew that every person there except Agamemnon was aware of her infidelity she told of the powerful love and longing that she felt for her husband.

"You are our safety," she told him, "our sure defense. The sight of you is dear as land after storm to a sailor, as a gushing stream to a thirsty wayfarer."

Agamemnon, who remembered everything clearly, too, and with his own intense pain, is put off by this effusiveness nor is he pleased by the lavish embroidery beneath his horse's hoofs. He reproves her for being so wasteful. He enters the palace with her; the doors close behind them. Then comes a great scream. The doors fly open, Clytaemnestra stands before the crowd with blood on her dress, her face and in her hands a bloody ax. "Here lies my husband dead struck down justly by my own hand—his blood, spouted and splashed me with dark spray, a dew of death, sweet to me as heaven's sweet raindrops —".

So what does one make of this narrative? What one can construe of this, or any legend, is limited only by the power of his imagination. A possible meaning, germane to the subject of quality control, is: A good idea gone wrong. I assume that most concerned parties would agree that some measure of quality control in the practice of medicine is desirable. But now medicine is increasingly encumbered by regulations, restraints, caveats, and reprisals against physicians and hospitals that do not enhance the quality of patient care in the slightest degree – and in the long haul will probably degrade this care.

Several points: Review Committees – these have various names and various functions. For instance, the members of the committee may review charts to decide the appropriateness of admissions to hospitals; the quality of care rendered by sifting the chart through diverse indicators; or the need for the length of the hospital stay. (Just to clear the deck, let me say that I sit on both sides of the table; I am in private practice, and am an advisor to a review organization.) By virtue of being on such a committee one is inevitably enveloped by the mantle of the inquisitor, ready to do right, to extirpate evil, to punish the transgressor. Such an attitude must be rigorously guarded against. We tend to wallow in the opportunity to do a good deed; we are blinded and damned by our good intentions. And we can very readily be made drunken with power. Further, such committees must justify their existence (they do but they get carried away in the process) by finding the doctor at fault all too often. It is rather like a tax audit – the audit will find that you do indeed owe a bit more tax than you have paid. Remember that most of the committee members generally are not doctors, and have no necessary admiration for the profession.

Records – here is the document, the instrument, as the law terms it. And, God wot, we are forever functioning now with at least half of our perceptions focused on "how would it look on court?" This concern cannot be cavalierly dismissed, but is given all too much weight in most deliberations, to our ruination and obsessing harassment. However, the lawyer can teach us a highly important point, that we are missing by looking too hard at other matters: When the lawyer asks "why do you keep records?" there is only one correct answer. Records are not kept to refresh your memory, or to aid in collecting your bill, or because the bylaws require them, but because you need records to help you treat your patient. That is the truth and it covers much ground. But the answer does not suffer from "the fallacy of misplaced concretism". The words do not jam you into a mold composed of casuistic buzzwords. They don't specify that your records must be meticulously detailed in beautiful calligraphy, or scribbled in sparse heiroglyphics; that they please the reader, pass muster with the review committee, protect you from rapacious lawyers, or serve as written tributes to your peerless medical skill. The records may do all that, but these issues are all secondary, a very distant second, to the compelling reason: To help you in the care of your patient. Most of us learned, as far back as medical school, that there is no correlation between the type of records a doctor keeps and the quality of care that he renders; I doubt that this point can ever be understood by the public. The most significant registration – significant to the patient and to the doctor – occurs always in the head of the doctor.

Retrospective denial is a commonly used device that punishes the doctor and the hospital. I think that in the majority of instances such denial is improperly done. Other than rather obvious processes, such as trauma, appendicitis and the like, who is to say when a patient is to be admitted to a hospital? Under what conditions do you admit someone whom you think has pneumonia? – or nephritis? – or diabetes? – or most anything? And when do you decide when that patient is ready to be discharged? Why could he have not been discharged twenty-four hours earlier, or later? And if twenty-four hours is satisfactory, then why not forty-eight hours? Who can ever know other than the physician who is there, exercising his clinical judgment? Retrospective denial is based by definition on retrospective judgment, a notoriously illogical process of thinking. Such denial is highly seductive to the reviewers; it appeals to omnipotence, both in their thoughts and in their actions. From seeing the records they know better than the doctor who was seeing the patient, and they can refuse to ratify the decision made by the doctor.

Does all of quality control really produce any improvement in quality of care? No one really knows; I suspect that it does produce some positive results, but the procedure is comparable to using a 75 mm field piece to destroy a nest of fire ants. There is no reason to believe that all of the quality control that could ever be arranged will make a good doctor out of a bad one; it can make a good doctor keep more detailed records, and perhaps drive him *mashugga*. Quality, like most abstractions, exists in the eye of the beholder. Some studies conclude that there is a direct correlation between quality of care in appendicitis and myocardial infarction and the quality and quantity of data in the charts; there are other studies that directly refute such conclusions. In psychiatry there are studies that indicate no correlation exists between the length of hospital stay and the condition of the patient after discharge, and that the most significant predictor was the therapist's decision that the patient was ready for discharge at the time of leaving the hospital. In short, subjectivism rules the day, as it will, and should; I prefer the term "clinical judgment". We forget Osler's epigram that the practice of medicine is an art based on a science and are trying to make the practice become entirely a science. If we can just quantify enough, if we can monitor sufficiently, if we can stop every mouse hole and sweep every grain of sand, then we will have achieved – what?

Cost is always a relevant issue; quality control and cost control are supposed to join hands to produce better overall patient care. Sometimes this desideratum may be attained, for instance: In the haze of therapeutic (and economic) furor of the 80's there came the concept of a one month program for drug and alcohol problems. This time interval may have been decided upon because it is the length of the female human menstrual cycle, or perhaps it represents the duration of the moon's orbit – regardless of the obscure rationale involved, the time alloted for hospital treatment had no direct relevance to the needs of the individual patient. Now, such programs are being widely reduced; hopefully more attention is being paid to the pathology, instead of the purse, of each patient.

Regrettably, as often happens, the pendulum is occasionally swinging too far, and discharge is being urged as soon as the patient is detoxified; again, a mistake, without proper study of the person.

There is always the guarantee that the mechanism of quality control will expand, proliferate and become even more costly. (It already is a considerable portion of the medical health bill.) Bureaucracy feeds on itself; the management of patient care, by whatever name, is a growth industry. If the expenses were not all laid in one package on the doorstep of the doctors and hospitals!

Some of the problem does, indeed, rest on those doorsteps; there is a legitimate reason for some degree of quality control. There are doctors – and I think my specialty has more than its share – who hospitalize patients unnecessarily. There are hospitals which encourage such practices. Various procedures, usually of a mechanical nature since these are concrete, "real" and are thus readily reimbursable, are often done with little justification. We doctors must develop a keener awareness of our motivations. Being the expert self deceivers that we are we usually rationalize our actions; very few doctors are deliberately dishonest, but we can conceal and distort the clinical issues in our monetary self interest and not know that we are deluding ourselves.

In addition to this primary responsibility, i.e., the appropriateness of our dealing with patients, we need to mount a concerted campaign to reduce the growth of quality control. We grouse to each other of our individual grievances; we separately write and call various agencies in a never ending attempt to validate either our integrity or competence, but we do not, as far as I know, make any formal effort to reduce this octopus. When we meet with the representatives of various underwriting agencies it is usually to listen to stipulations that they make concerning regulations that they deem advisable. More and more in those meetings similar to the one first mentioned, do I hear threats and intimidations aimed at the doctor. This is unwarranted and should be opposed vigorously. The usual response to any question concerning these thinly veiled reprisals is "it's the law." It may well be the law, but it is not written in stone. Our legislators and our lobbyists should be thoroughly apprised of these laws and relief sought at the source.

In the next decade or so this ruinous process will probably cause a regression in the quality of medical care – the very item that, ostensibly, we are trying to enhance. So far the main efforts made by doctors and hospitals are to accommodate themselves to the regulations that are put upon them. I see no attempt to oppose these stringencies, but merely to grumble and accept them. Therefore in a few years there will be a new group of doctors who know no different path, who follow the carrot on the stick without much fuss, who will be, in brief, an inferior breed – inferior in imagination, in creativity, in industrious attention to their profession, and inadequate in awareness of either their patients' or their own needs.❑

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Impact of Family Physicians' Cessation Of Obstetric Care

*William J. Crump, M.D.**
Claire Marquiss, B.S.†
Peggy Pierce, B.A.†

Dr. Crump's article was published last month in Alabama Medicine *but the all-important tables were omitted. Following is the entire article as he submitted it. — Ed.*

INTRODUCTION

Family physicians are leaving the practice of obstetrics in large numbers, leading to what some fear may be an "extreme patient care crisis".[1] Increasing liability risk and high premium costs are among the reasons cited by physicians who chose to give up obstetrics. National surveys of family physicians have found that less than 50% of family physicians continue to deliver babies[2, 3] and reports from individual states describe many counties that are without obstetric care.[4, 5, 6] In Alabama the number of family physicians providing obstetric care dropped from 212 to only 70 in a five year period,[7] and current estimates are that fewer than 30 family physicians continue to deliver babies.[6]

While this situation presents problems for many women of childbearing age, the effects are magnified among rural women and the poor. Rural patients frequently have to drive long distances to reach physicians whose patient load may be excessively high already.[4,5] Many physicians prefer not to care for the medically indigent, as those with lower socioeconomic status have a higher risk of complications. In addition, Medicaid reimbursement for those patients who have this coverage has been typically very low.[4] These access problems may lead to significant increases in maternal and neonatal morbidity and mortality.[2] We sought to describe the effect on the process and outcome of subsequent pregnancies among women whose family physician ceased delivering babies, as well as the patients' perceived differences between the two pregnancies.

METHODS

The Alabama Perinatal Outcome Project (APOP) was established in 1983 to document maternal and infant outcome in pregnancies managed by family physicians in small community hospitals in Alabama. The APOP is a practice network of family physicians throughout the state which provides an unselected primary care patient population for study. Research methods, definitions, sample bias and reliability issues for the APOP have been described previously.[8] Nine APOP physicians at four sites who had recently stopped doing obstetrics agreed to participate in this project.

One hundred thirty-four patients were eligible for inclusion in the study as they had not had a tubal ligation after their last delivery. These patients were contacted to determine if they had experienced a subsequent delivery and if they would participate in the study. Thirty-six had not had a subsequent pregnancy. No response was received from 57 women even after several attempts were made to contact them, and 10 could not be located.

The subjects were sent a consent form which explained the purpose of the study and gave permission to obtain a copy of their hospital medical records for their last delivery. These records were used to complete a perinatal outcome form. The perinatal outcome data allows comparisons of pregnancy, labor and delivery variables. The data set used included only those subjects with previous perinatal outcome data in the APOP database. With this information, the two deliveries could be compared.

A questionnaire was also completed by each participating subject. The questionnaire compared the sub-

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jects' pregnancy and delivery experience while still under the care of her regular family physician to the experience she had after her family physician stopped doing obstetrics. Subjects were asked specifically how far it was from their home to the hospital where they delivered for both their previous and most recent pregnancies, the distance from their home to see a doctor for prenatal visits for both pregnancies, and whether these distances caused them any difficulties. They were also asked about the size of their support network for both pregnancies. Finally, there were two open-ended questions which asked participants to describe the differences between their most recent delivery and the previous delivery, and to describe how the medical care might have been better for the last delivery.

This report will compare the process and outcome of the two pregnancies, in addition to examining the questionnaire data from survey participants which describes the differences they perceived between the two pregnancies.

RESULTS

After three mailings, consent forms and questionnaires were obtained from 31 subjects. Five of these subjects had their first delivery after their regular family physician had stopped doing obstetrics. Data from these five subjects is not included in comparisons of perinatal outcome data, but is included in some of the questionnaire results, where appropriate. Tables 1 and 2 summarize comparisons of deliveries and include only those with subsequent deliveries (N=26). Table 1 shows that the subjects had to drive farther to the hospital where they delivered and farther to see their physician for their second delivery than they did for their first. Subjects reported having fewer friends and relatives that they could count on for assistance within 10 miles of the hospital. Nine (35%) of the women reported that the distance to the hospital caused them problems and half reported that the distance to see their physician was a problem. The differences noted by participants between their latest delivery and the previous delivery are shown in Table 2. Participant comments about the problems caused by distance are categorized by type of problem in Table 3.

TABLE 1
Comparison of Distances Traveled

	Previous Pregnancy (N=26)	Subsequent Preqnancy (N=26)	P Value
Distance to hospital (miles)	16.7 ± 16.3	37.7 ± 15.2	.000
Distance to physician (miles)	17.7 ± 14.4	34.2 ± 17.2	.001
Support network close to hospital (No. of individuals)	3.0 ± 2.3	1.6 ± 1.8	.009

TABLE 2
Labor Variables
(N=26)

Less Positive Relationship with the Physician
(Subsequent Delivery)

Labor and Delivery Differences:

Shorter Labor – Subsequent Delivery

Longer Labor – Subsequent Delivery

More Medication – Subsequent Delivery

Transportation Problems

Greater Expense – Subsequent Delivery

TABLE 3
Problems Caused by Increased Distances
(N=26)

Distance to the Hospital (N=31)
- Traveling distance while in Labor
- Family could not visit often enough
- Transportation Problems
- Time Lost from Work
- Additional Expense

Distance to see the Physician (N=31)
- Time Lost from Work
- Travel Problems, Inconvenience & Discomfort
- Child Care for other Children at Home
- Less Chance to Get to Know the Physician
- Decreased Frequency of Visits to Physician

TABLE 4
Ways in Which Medical Care Could have been Better For Subsequent Delivery
(N=31)

Shorter Distance from Hospital and Physician
–Anxiety about distances

Shorter Distance from Home and Family
(While in Hospital)

Problems with the Physician
- – Bedside manner improvements
- – Had to change physicians 3 times
- – Physician's office was short of staff
- – No post-partum physician visit

Hospital staff Unfriendly – Tense Atmosphere

Nearly half[4] of the respondents reported that their medical care for the last pregnancy was adequate. The comments of the other respondents are shown in Table 4.

Complete perinatal outcome data was available for only 19 deliveries. The labor variables shown in Table 5 for the two pregnancies were similar except that the mean Bishop score was higher for the previous preg-

TABLE 5
Labor Variables

	Previous Pregnancy (N=19)	Subsequent Preqnancy (N=19)	
	No. (%)	No. (%)	P Value
Amniotomy	14 (73.7)	10 (55.6)	NS
	Mean ± SD	Mean ± SD	
Bishop Score	8.9 ± 3.1	4.9 ± 2.3	<.001
ROM Duration (hrs.)	65.8 ± 54.6	41.6 ± 62.5	NS

TABLE 6
Analgesia/Anesthesia

	Previous Pregnancy (N=19)	Subsequent Preqnancy (N=19)	
	No. (%)	No. (%)	P Value
Meperidine	10 (52.6)	1 (5.3)	<.005
Local	7 (36.8)	9 (47.4)	NS
Pudendal	4 (21.1)	2 (10.5)	NS
Epidural	1 (5.3)	6 (31.7)	.09

TABLE 7
Delivery/Puerperium Variables

	Previous Pregnancy (N=19)	Subsequent Preqnancy (N=19)	
	No. (%)	No. (%)	P Value
Episiotomy	14 (73.7)	13 (68.4)	NS
Assisted Delivery	5 (26.3)	4 (21.1)	NS
Primary Cesarean Section	2 (10.5)	1 (5.3)	NS
Repeat Cesarean Section	0 (0)	2 (10.5)	NS
Postpartum Hemorrhage	1 (5.6)	0 (0)	NS
Postpartum Infection	1 (5.6)	1 (5.3)	NS

nancies. Table 6 shows that significantly more women received Meperidine for their previous delivery, while more women received an epidural during their subsequent delivery. As seen in Tables 7 and 8 there were no differences in delivery or puerperium variables, nor were there differences in infant outcome variables.

Finally, a comparison was made between the size of the delivery hospitals and the towns where the deliveries occurred. The subjects' latter deliveries occurred in larger hospitals in larger towns than when their family physician cared for them. There was also a significant reduction in the number of subjects delivered by family physicians. These data are shown in Table 9.

DISCUSSION

With only 31 usable questionnaires, the response rate for the study was disappointing. Locating the eligible subjects and determining which subjects had subsequent deliveries was labor intensive. Even with repeated mailings, the rate of return for the questionnaires was very low.

TABLE 8
Infant Outcome Variables

	Previous Pregnancy (N=19)	Subsequent Preqnancy (N=19)	
	No. (%)	No. (%)	P Value
FHR Abnormality	2 (10.5)	3 (16.7)	NS
Meconium Staining	1 (5.3)	0 (0)	NS
Wt. < 2500 g	1 (5.3)	1 (5.3)	NS
Wt. > 4500 g	1 (5.3)	0 (0)	NS
1 min. APGAR < 7	0 (0)	1 (5.3)	NS
5 min. APGAR < 7	0 (0)	0 (0)	—

TABLE 9
External Characteristics of Delivery

	Previous Pregnancy (N=19)	Subsequent Preqnancy (N=19)	
	No. (%)	No. (%)	P Value
Deliveries by FP physicians	19 (100)	5 (26)	<.001
	Mean ± SD	Mean ± SD	
Beds in delivery hospital	110 ± 40	390 ± 220	<.001
Size of town where delivered	8800 ± 3800	85100 ± 66300	<.001

Overall, it is troubling that so many women responded that the increased distance they had to travel for obstetric care caused them difficulties, particularly where the doctor-patient relationship was affected. Time lost from work and increased travel expenses may add substantially to the cost of having a baby. While no neonatal mortality or morbidity was described by respondents, one woman reported that she nearly delivered in the car on the way to the hospital and another had to be transported by ambulance. Only one woman reported cutting back on prenatal visits but the increased traveling distance for prenatal care may be more of a problem than was reported by this small sample.

Because the most motivated women would be most likely to complete and return the questionnaire, these data are likely to exaggerate the actual differences between the two deliveries. Nonetheless, a clear pattern emerges. When their local family physician was delivering, the drive for prenatal care and delivery was 15-30 minutes, and the women had 2-4 people to help them with care of other children and other practical needs.

After their family physician stopped obstetrics, they had to drive 30-60 minutes, and only had 1-2 people nearby to call on for help. Considering the demands of time and energy of young parents, this could have been a minor inconvenience or a significant crisis.

In their subsequent delivery, these women traveled to cities ten times larger, delivered in hospitals with

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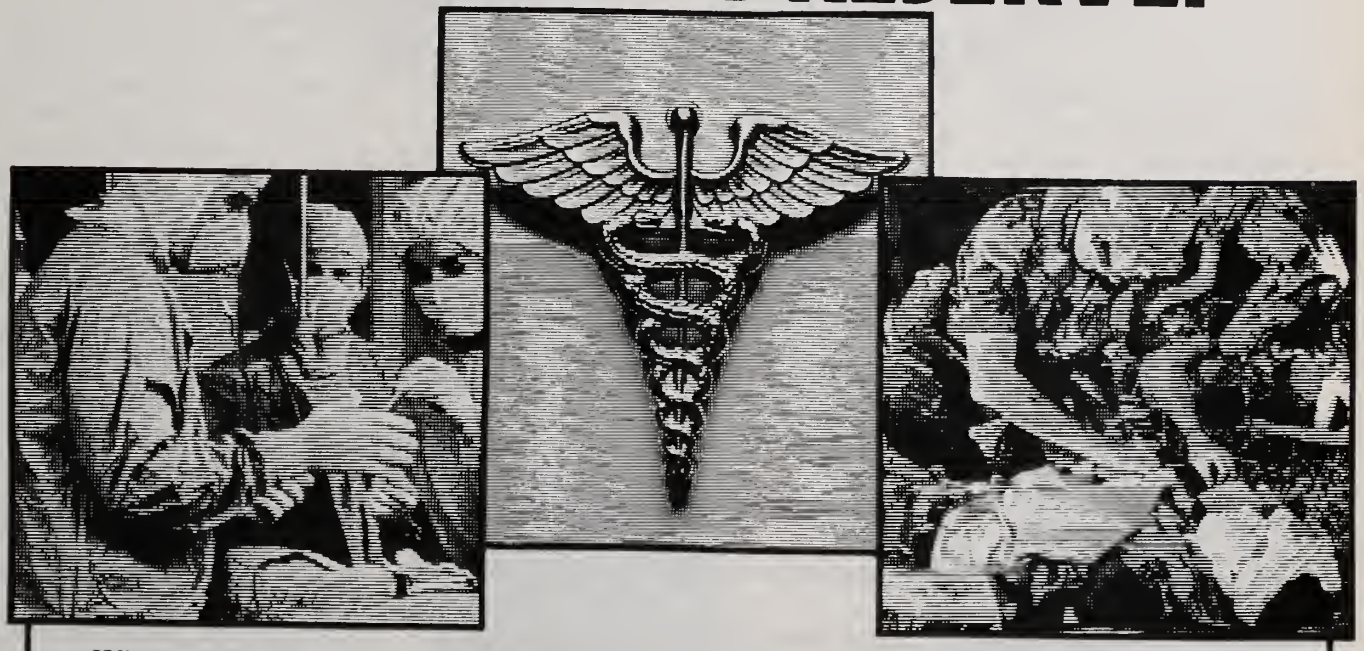

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four times more beds, and were largely cared for by obstetricians. While most tolerated these changes quite well, 42% made negative comments about the subsequent delivery, and none preferred this situation. In addition to transportation and expense issues, 23% cited some alteration in the relationship with their medical care-givers. These women suggested that the increased distance resulted in fewer doctor visits and therefore less opportunity to develop a comfortable relationship with the physician. They were also anxious about the distance to be traveled in labor, and some were uncomfortable in the larger hospitals.

Previous studies have shown a correlation between maternal anxiety and poor perinatal outcome.[9-13] Although this sample size was too small to detect small effects, the matched design adds considerable statistical power.[14] These patients presented in labor with lower Bishop scores in the subsequent pregnancy. This is the reverse of the usual pattern, suggesting that these women came to the hospital earlier in the labor process because of the distance involved, or their physicians admitted them earlier, or both. This longer inhospital time could increase maternal anxiety or potentially allow iatrogenic complications.

"They were also anxious about the distance to be traveled in labor, and some were uncomfortable in the larger hospitals. Previous studies have shown a correlation between maternal anxiety and poor perinatal outcome."

The management of labor showed some definite differences. There was a shift away from Meperidine analgesia and Pudendal anesthesia towards epidural use. While the numbers are too small in this study to determine any effects of this change, previous studies have shown correlations between epidural use and longer labors, malrotation, and assisted deliveries.[15] There was a trend in infant outcome towards more FHR abnormality and low one minute APGARs in these subsequent deliveries, but all of the important events were too infrequent for reliable detection in this sample size.

The intent of this study was to describe the differences in process and outcome of pregnancy care in women from rural areas when their local family physician stopped delivering babies. While the response rate was disappointing, the data show some clear differences and suggest others. Larger studies are needed to answer the pressing, critical question: "Just how important is it to maintain obstetrical care by rural family physicians?" ❑

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Short-Lived Peace Dividend

Continued from page 4

on. The peace dividend seems to have died aborning.

No one knows what lies ahead but it does appear that U.S. physicians, in common with the general population, have been clobbered by Saddam.

* * *

In a recent issue of *Alabama Medicine* I referred to the growth of federal bureaucracy and to the Washington establishment, a more or less permanent army of rulers who change little with administrations. *Time* magazine has provided some numbers on that establishment. In the District, there are now 55,000 lawyers, most of them involved one way or another in govemment; 7,000 lobbyists; 20,000 congressional staff members; and about 10,000 joumalists.

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The following forms were inadvertently left out of the article ***"Nutrition Counseling: Guidelines for the Practicing Physician"*** by Margaret P. Garner, M.S., and T. Riley Lumpkin, M.D. in the July/August issue by the typesetter.

Margaret P. Garner, M.S., R.D., L.D.
Department of Family Medicine
Capstone Medical Center
348-1266

Referral for Nutrition Counseling

Name_____ Age_____

Primary reason for referral_____

Diagnoses:

_____
_____
_____
_____
_____

Medications:

_____
_____
_____
_____
_____

Pertinent Laboratory | date

_____ _____
_____ _____
_____ _____
_____ _____

Physical data

_____Height_____Weight

If child, growth chart attached_____

Physical/Exercise Restrictions:_____

Other:_____

_____

Specific Recommendations:

_____
_____

_____
DATE

_____M.D.
Referring Physician

Figure 1. Sample form for referral to registered dietitian.

NUTRITION CARE PLAN
CAPSTONE MEDICAL CENTER
700 University Blvd. E.
Tuscaloosa, AL 35401

Name_____ **Chart #**_____

Referred by_____M.D.

Diagnoses

____Anemia_____
____Anorexia/Bulimia
____Atherosclerosis
____Cancer_____
____Coronary Artery Disease
____Diabetes Mellitus_____
____Diabetes Gestational
____Failure to thrive
_____Gastrointestinal Disease_____
_____Hyperlipidemia_____
_____Hypertension
_____Obesity
_____Peptic Ulcer
_____Renal Disease_____
_____Other:_____
_____

Medications

_____
_____
_____
_____

Dietary Modifications: _____Calories
_____% Carbohydrate; _____% Protein; _____% Fat; _____g Na; _____g K;_____mg Cholesterol
_____g Carbohydrate; _____g Protein; _____g Fat; Other_____

Eating Times:		AM	AM	PM	PM	PM	PM
FOOD GROUPS	**DAILY TOTALS**	Break-fast	Snack	Lunch	Snack	Dinner	Snack
Milk,							
Meat/Substitute							
Fruit/Juices							
Vegetables							
Bread/Cereal							
Fat							
Free Choices							

Constraints- NONE
Financial_____Educational_____Motivational_____Transportation_____
Handicap_____Family Support_____Other:_____

Literature Used

____Weight Reduction, Simplified Lists
____Weight Reduction Exchange List
____Healthy Food Choices, (Simpl. Diabetic 1986)
____Eating Healthy Foods (Pictoral Diabetic)
____Diabetes Exchange Lists (1986)
____Exchange Lists - Fat Modified
____Suggested Meal Pattern (Simplified)
____Sodium Rich Foods to Avoid
____Seasonings for Mild Sodium Restriction
____Recipes for Sodium Restriction
____American Heart Association Diet
____Low Calorie Recipes
____Other_____

Management Tools

Monitoring:
_____Food Diary
_____Food Chart
_____Exercise Record
_____Diabetes Flow Chart

Outcome:
____Weight Record
____Circumference Measurements
____Heart Rate

GOALS

Exercise Type	Duration	Frequency
_____	_____min/miles	_____day/wk.
_____	_____	_____

Weight change_____pounds per week/month

Other:_____

Registered Dietitian_____
Margaret P. Garner, M.S., R.D., L.D.

Date_____

Revised 6/90

Figure 2

Mrs. Charles Patterson
A-MASA, President

Alabama's Front Row Seat

DECISION 90 was the theme of the AMAA Annual Session June 24 - 27, in Chicago. Over 300 elected delegates, alternates, national officers, past AMAA presidents, and honorary members assembled at The Drake Hotel for this first, informative convention of a new decade.

Representing Alabama were immediate Past President Martha Anne Hardiman, President - Elect Jessie Bean, First Vice President Margaret Mitchell, Treasurer Dale Griggs, AMA -ERF Chairman Donna Gosney, Southeast District Vice President Maria Luisa Ardon, Past A-MASA President and President's Council member Martha Hughes, and me.

A preview of the national program goals and obJectlves for the new year was presented by the 90-91 AMAA President, Norma Skoglund, and the AMAA Committee Chairmen.

Mrs. Skoglund's motivational theme for the year is THE VALUE OF YOUR SERVICE. Emphasis will be focused on the volunteer contributions physicians and auxilians make in their communities. A new nationwide media campaign will be launched by the AMAA to prepare auxiliaries for effectively sharing with their local media the committment medical families are making to providing quality health care.

Breakout sessions provided national committee leaders with an opportunity to share with delegates detailed plans for Health Projects, Membership, and AMA-ERF. Delegates learned how to make the new year go smoothly and ordered appropriate materials for their state.

Opening sessions of conventions are generally filled with pagentry, excitement, and some very memorable moments. The AMA and AMAA opening sessions were no exception. This year to a rousing fanfare, an explosion of colorful balloons, and a thundering round of applause, Jean Hill (Mrs. J. Edward) presented a check for $2,050,351.25 to Lonnie Bristow, M.D., President of the American Medical Association Education and Research Foundation. The check represented a mammoth effort on the part of every auxllian ln every state; Alabama's total auxiliary and physiclan contribution for the 89-90 year was $ 41,951.34.

Preparing for the opening sesslon of the AMAA was a very special experience for me. Never has one been so pampered, pressed, photographed, and presented with the most beautiful pink roses by such thoughtful friens. These very attentive delegates did everything possible to make sure their president was appropriate for the presidential line up and prepared for leading the delegation to its assigned front row seats. Their warmth and generosity will not be forgotten.

It was a special honor and pleasure to stand in the opening roll call and represent our state which was , once again, recognized for having over 75% unified membership. Many thanks to our 89-90 membership team led by First Vice President Margaret Mitchell and Past Treasurer Myra Currier who filled out the multudinous forms that made this recognitlon po5si1e.

Delegates to thls annual session ha the opportunlty to hear such nationally acclaimed speakers as Andrea Mitchell, Cheif Congressional Correspondent for NBC News who gave us her "View from the White House" on Monday.

Terry Savage, financial analyst for Channel , WBBM TV(CBS, Chicago) addressed the convention on Tuesday. She spoke on "Business Outlook and Money Management", based upon her book, Savaqe Talks Monev : the Lanquaqe of the Bulls. Bears ... and Chickens.

On Sunday evening, Ann McLaughlin, Chairman of the President's Commission on Airline Security and Terrorism and Former Secretary of Labor, delivered the keynote address. Currently a visiting fellow and visiting member of the board of trustees of the Urban Institute, Mrs. McLaughlin discussed the critical workforce issues of the future.

During the closlng session of the House of Delegates, AMA President Alan R. Nelson, M.D., discussed with

our members the concerns of organized medicine. Later he presented the HAP (Health Awareness Program Awards which recognized the work of county auxiliaries for health promotion programs and projects.

Auxilians were most impressed with the dynamic presentation of the new Surgeon General, Dr. Norvella. She very quickly and effectively pleaded her case and won our support for her areas of deepest concern : smoking, AIDS, alchohol consumption, organ donation, mental illness, and breast cancer.

In other convention business, delegates participated in Reference Committee hearings, held the traditlonal state caucus to discuss Reference Committee Reports and election issues, and llstened to the two minute reports presented by each organized state auxiliary. These reports, although they seem long at the time, are a very resourceful part of the convention. Ideas for programs, projects, themes, and the encouragement to try something different emerge from these presentations. In between convention meetlngs, Alabama delegates did some planning for our board meetings and convention this year, and explored the feasibility of a new statewide AMA-ERF project.

All was not work for our delegation. We confess to taking advantage of shopping opportunities on Michagan Avenue, dining royally with our state leaders, and enjoying a thrilllng production of "The Phantom of the Opera". The President and President-Elect, after staying over for the AMA installation, managed to view the Monet Exhibit before leaving Thursday afternoon.

After a five day stay in the windy city, the Alabama delegation left a little weary and eager to return home to family. We traveled home from this Chicago trip with a renewed committment to support the medical associatlon of our state, and to serve diligently in our state and local auxiliaries during the months ahead. ❑

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Talar osteonecrosis may result from dislocation or fractures to the neck and dome of the talus. A limited vascular supply is due in part to the fact that 60% of the surface is covered by articular cartilage. Osteonecrosis may also occur in conjunction with osteochondral lesions such as osteochondritis dessicans and osteochrondral fractures, where rotational or torsional impaction injuries may produce transchrondral fractures of the talar dome.

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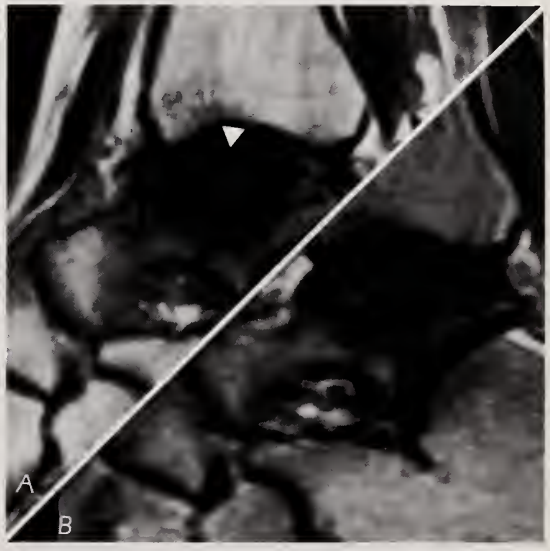

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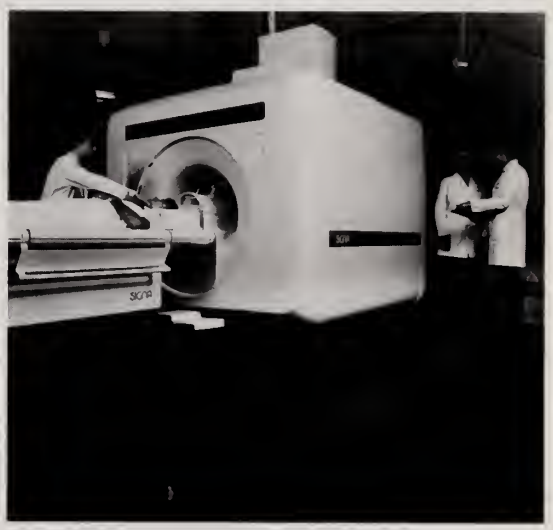

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Alabama Medicine

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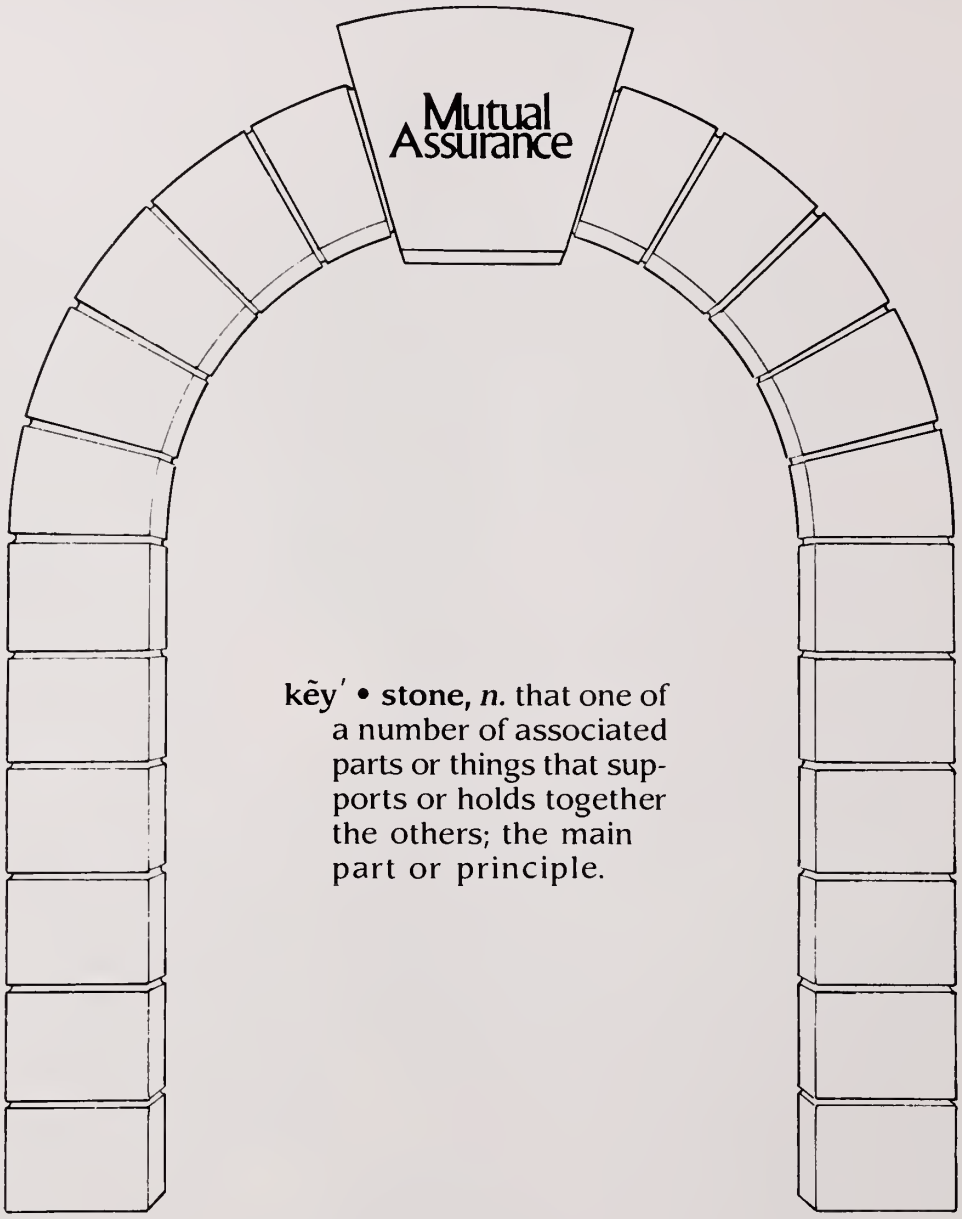
DARKNESS AT NOON

See Page 4

The Keystone of Your Protection



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In This Issue

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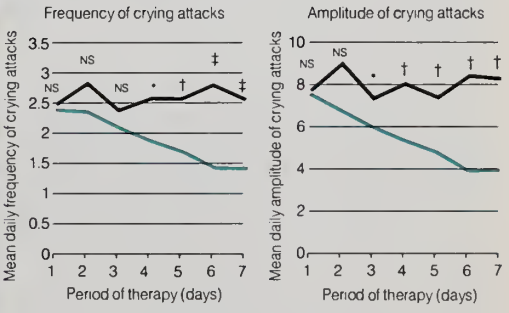

p values (active vs placebo) NS = Not significant •$p < 0.05$ †$p < 0.02$ ‡$p < 0.01$

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Helps you through the colic phase.

1 Kanwaljit SS, Jasbir KS Simethicone in the management of infant colic *Practitioner* 1988,232 508

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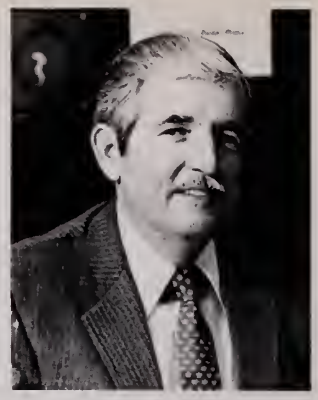

S. Lon Conner
Executive Director, MASA

Darkness At Noon

On the night of Oct. 2, President Bush appealed to Americans to call their representatives in Washington and demand support for the deficit-reduction package cobbled together during the long, hot summer.

The President had relied on polls that seemed to show Americans deeply concerned about the deficit and willing (or so they said) to pay taxes to relieve it.

Thousands called, swamping the circuits in Washington. But by an overwhelming margin—some lawmakers said 98%—the callers demanded that their representatives vote *against* the Bush plan. The two major concerns, Congressmen of both parties attested, were the Medicare cuts and the gasoline tax. Some high domes called it the biggest backfire in American political history.

First, consider the polls. When people say they would support new taxes, they don't really mean new taxes on *them*. Former Senator Russell Long, an expert on revenues and public attitudes toward them, said at the time of his retirement that the refrain of Americans is always the same: "Don't tax him and don't tax me; tax that fellow behind the tree."

It has become increasingly obvious that what Americans say to pollsters is often quite different from their true feeling. What the people were really feeling, I believe, was summed up by many commentators in the wake of the Oct. 5 budget fiasco. Here are a few.

Time magazine ". . . In the end, the American people must accept responsibility for what is happening inside the beltway. Too many voters have allowed themselves to be seduced by the notion that they can have their goodies from government with no increase in price. A mighty military, social security, Medicare, farm subsidies, poverty programs, housing, highways, bridges, clean air, clean water, veterans benefits—the whole panoply of federal involvement in American life—must, like everything else, be paid for. Today, it is not being paid for. . ."

Not even by that fellow behind the tree. But who convinced the people that the free lunch was viable? The politicians. Here is columnist Meg Greenfield:

"The Republicans in the White House and some (though not all) of them on the Hill have spent a decade telling Americans they could have it all, practically for free. Vast numbers of Democrats in Congress have been telling the same Americans essentially the same thing: that they could have ample public services and benefits and cheap energy if only the very rich and the Defense Department were made to pay and/or cut back.

"Both parties were in this sense propounding or, if they weren't propounding, at least tolerating Mickey Mouse economic doctrine. Such doctrine had, as it was meant to have, great and deep appeal and it also created a pool of political diehards in Washington who were above being swayed."

Newsweek—"The deeper problem is figuring out what we want from government. The 'budget crisis' offered an opportunity to do just that. It provided a chance to eliminate unessential spending and to improve the fairness of the tax system. The opportunity has been missed because of the worst instincts of the Democrats (protect spending) combined with the worst instincts of the Republicans (protect the incomes of the well-to-do) ....

"Government ultimately rests on public opinion. Without a clearer idea what government should do, Americans are entitled to their contradictory expectations. And we will all continue to suffer the consequences of a political culture in which elected officials believe that making any unpleasant choices is an act of enormous—and foolish—courage."

As I have said often before in this space, when the people are constantly told by politicians that they can have something for nothing (an immemorial craving of the human spirit), they believe it because they want to believe it. The ambiguity here is that Americans, more than any people on earth, are characteristically contemptuous of political promises. "Pie in the sky" was coined long, long ago.

Thomas B. Edsall, in *The Washington Post*—"While leaders of the two parties in Washington have drawn deep lines in the sand on their differences over economic policy—lines that are in many ways irreconcilable, pitting tax

Where there's smoke...there may be bronchitis

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Am Fam Phys 1987;36:133-140

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Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions.
• Discontinue Ceclor in the event of allergic reactions to it.
• Prolonged use may result in overgrowth of non-susceptible organisms.
• Positive direct Coombs' tests have been reported during treatment with cephalosporins.
• Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
• Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
• Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
• Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of **serum-sickness-like** reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, **serum-sickness-like** reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
• Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
• Gastrointestinal (mostly diarrhea): 2.5%
• Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
• As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
• Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
• Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

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• Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
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progressivity against investment incentives, rich against poor—segments of the electorate have developed similar irreconcilable conflicts over attempts to reduce the deficit.

"On one hand, many voters reject the notion that they should pay the costs of reducing a deficit that politicians created. On the other hand, as pollster Geoff Garin noted in a memo to members of Congress, if there is no budget settlement and a long sequester results, an explosive reaction against incumbents is a real possibility."

As I read that, voters were saying: "We want the budget settled and the deficit solved but we don't want to pay for it. If you don't settle it, we'll vote against you; if you do settle it, but it costs us money, we'll vote against you."

Now there is a Hobson's choice for congressmen: either way, they're cooked. One can almost muster sympathy for them—almost. Their chickens are simply coming home to roost: politicians have been promising the moon and sixpence to Americans for so long, we are all now persuaded that the country owes us wine and roses *in perpetuum.*

This welfare state mentality is the work of both parties, of the Presidency and Congress. What worries me most is the rather widespread belief that when the budget impasse is solved, all our problems are over and we can go back to business as usual.

That could be a near-fatal conclusion. As economist Robert Kuttner has written, the budget stand-off is "a mere spike on the seismograph; the earthquake is yet to come." Although the Chicken Littles were proven wrong during the 1980s, Mr. Kuttner writes, they are about to have their day:

"During the 1980s, the U.S. economy seemingly defied the laws of economics for two simple reasons: foreign borrowing on unsustainably favorable terms, and a steady decline in the price of oil. Both of these factors have now reversed and are unlikely to return....

"Our allies in Germany and Japan covered America's borrowing binge as long as their capital surplus held out. They kept lending, partly to enable us to keep buying their products, and partly because they liked playing the global role of economic giant and political dwarf. As their real economies strengthened, ours weakened."

Throughout the 1980s foreigners bought U.S. long-term debt at the rate of $70 to $80 billion a year. It was this, not some magic suspension of the laws of economics, that drove the U.S. consumer economy. And the debt machine was lubricated, Mr. Kuttner says, with ever-cheaper oil, which fell from $34 at the beginning of the 80s to $16 last June.

Although the present price is exaggerated by speculation, he believes, he and other analysts expect oil to settle back eventually to about $24. But that means "a price hike of one-third in the costs of our advanced economy's most basic input."

Japanese and Germany money is now headed back home. After years of speculative excess driven by cheap money, the Tokyo stock market has lost nearly half of its value—$2 trillion in paper money wiped out. To control the damage, Japanese central bankers have raised prime interest rates six times in the past 18 months, to a modem peak. This brings Japanese capital exports back to their country, Mr. Kuttner notes: "Japan in effect is calling its loans." Directing strategy in Japanese investments now are those committed to an ultra-tight money policy. The upshot is that investment in the U.S. is no longer nearly as attractive as it was.

And Germany has its own reasons for calling its loans. The reunification with its poor relatives in East Germany imposes a massive burden on the German economy that will likely continue for a generation. The result, Mr. Kuttner says:

"The dollar has been falling steadily against the yen and is at a historic low against the mark. To restrain further outflow of foreign capital and to contain inflation pressures generated by oil prices, the Fed needs to tighten money policy. But to head off recession, it needs to loosen it . . . "

Assuming a deficit reduction package of $500 billion over five years, Mr. Kuttner writes, the fundamental pictures is not changed:

"Even using an absurdly sunny set of assumptions, and even after a budget deal so politically painful that it could not pass Congress, deficits in excess of $200 billion stretch as far as the eye can see. Further, the timing and distribution of this particular budget deal actually could worsen the slump. The Bush administration waited too long. It finally deigned to accept a contractionary fiscal package—just in time to meet, and probably deepen, the oncoming recession."

To make matters even worse, corporate and consumer debt are at record levels and "this recession comes after a decade of steady weakening of the entire financial sector, savings and loans, banks, brokerages, even insurance companies."

Real estate values are falling and many of these troubled institutions are up to their ears in real estate loans.

Worse yet, Mr. Kuttner concludes, both political parties are in a state of total- paralysis over fiscal policy. Nobody in either party wants to appear to be the author of ending the false prosperity of the 1980s.

He continues, but I think you get the idea. We are in for very lean times after years of make believe. In good times, economists say, all boats rise; in bad times, all boats settle lower in the water.

American medicine will be buffeted by the effects of contractionary economics for many years, I believe. And you will see this translated in familiar ways: wrenching belt-tightening by third party payers; rationing in old and new disguises; patients hard-pressed to pay rising deductibles and co-pay. And so on.

Perhaps in the recent boom years, some physicians could with impunity turn a deaf ear to the calls for them to get involved in organized medicine. I believe that luxury, like many others, will be one of the first casualties of the new economic reality, in which weak sectors of the political spectrum will be hit hardest.

In short, after a decade of illusion, water is again running downhill. ❑

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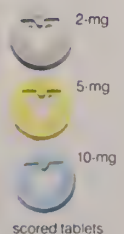

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PRESIDENT'S PAGE

T. Riley Lumpkin, M.D.
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Your Hidden Assets

MASA's administrative Services & Membership Department is one that offers a tremendous amount of service to the individual physician. These services are not truly understood and appreciated because of their hidden nature.

This area of the Association is under the control of Emmett Wyatt, Executive Assistant to the Director. Mr. Wyatt has been with the Medical Association longer than anyone else, 38 years. He is ably assisted by his secretary, Jackie Baskin; mail clerk and technical assistant Frankie Armstrong; and our courier and building custodian, Mack Allen.

This group of efficient and dedicated workers is rarely seen except behind the work desks at the annual convention of the Association. Find out who serves you next April in Birmingham and get to know them—they are invaluable to the efficiency of the organization.

To bring you up to date on the many duties performed by the Association for you, this is the second article in a series about the various divisions and services performed for Alabama physicians.

Check your membership roster; it's a valuable index of membership, with pictures of the majority of the MASA members, office addresses and telephone numbers as well as a list of the Auxiliary members and the non-members of MASA. It contains a list of the Officers and Counsellors of the Association.

Mr. Wyatt and his staff coordinate the production and distribution of the pictoral membership roster, which contains many bits of important information that can be of much help to you in your everyday practice of medicine. It contains the Constitution & Bylaws of the Association, a list of the hospitals in the state, and many other beneficial bits of Wormation.

The great travel advantages that come to you presented by INTRAV and the Trans National Travel Agency are coordinated and sent to you by our Membership Department. Remember the great Rhine River Trips, the Alaskan Cruise, the South American Venture and many other great trips as ski adventures to Vail, etc.? Whether or not you partake of these opportunities for great vacations with continuing medical education, the planning and presentation represent much thought and preparation to give the members of the Association quality travel at a reasonable cost per hour of education.

This can be a time for family enjoyment as well as good continuing education. Don't overlook these brochures as they come to your office; browse through them and select an adventure to refresh your soul and renew and enlarge your basic medical knowledge. Try it; you and your family will like it.

The membership records for MASA physicians are computerized and kept current by the membership department while performing the same function for the Auxiliary. This group also manages the day-to-day operations of the Association, with purchases, inventories, billing and dues collection. It manages the Association mail room for all postal functions and mass mailings of *Alabama Medicine*, the *M.D.*, *STAT* and other publications from MASA.

If you are planning a medical program and need to contact a certain group of Alabama physicians, you may call MASA and purchase a set of computer labels with lists of selected physicians by specialty, geographic location or by county. The Association may also provide these computer labels and physicians lists for a nominal fee to universities, hospitals, county medical societies or specialty society groups.

Other areas of activity include the coordination of the annual MASA meeting, which rotates to a different location each year. Planning involves site arrangements, exhibit sales, preparation of site for annual session with

Continued on page 28

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1. Data on file, G.D. Searle & Co. **2.** 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial [illegible] AV conduction, and repolarization. Combined verapamil and quinidine therapy in [illegible] hypertrophic cardiomyopathy should be avoided, since significant hypotension [illegible] Concomitant use of lithium and verapamil may result in a lowering of serum lithi[illegible] increased sensitivity to lithium. Patients receiving both drugs must be monitor[illegible] Verapamil may increase carbamazepine concentrations during combined use. Rifampi[illegible] verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil [illegible] serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium [illegible] needs careful titration to avoid excessive cardiovascular depression. Verapamil ma[illegible] the activity of neuromuscular blocking agents (curare-like and depolarizing); dosa[illegible] may be required. Adequate animal carcinogenicity studies have not been performe[illegible] in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic [illegible] test. Pregnancy Category C. There are no adequate and well-controlled studies [illegible] women. This drug should be used during pregnancy, labor, and delivery only if cle[illegible] Verapamil is excreted in breast milk; therefore, nursing should be discontinued duri[illegible] use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypoten[illegible] headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dysp[illegible] bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° [illegible] (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported [illegible] less of patients, occurred under conditions where a causal relationship is uncer[illegible] pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, [illegible] purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival [illegible] ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorder[illegible] muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthral[illegible] exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnso[illegible] erythema multiforme, blurred vision, gynecomastia, increased urination, spotty [illegible] impotence.

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Scurvy

*Thomas W. Sheehy, M.D.**

"Scurvy," I said, "this patient has scurvy." The housestaff looked at me with considerable doubt. Only after several of the clinical manifestations were pointed out — namely, coiled hairs and follicular hemorrhage (Fig 1- 2) — was the suggestion taken seriously. The patient was an alcoholic with megaloblastic anemia and malnutrition manifested clinically by increased hair pluckability and myoedema.

Like most clinicians, I consider scurvy a rare clinical entity in our country. Here, its victims are usually alcoholics, food faddists, the homeless and elderly individuals living alone. However, in third world countries, scurvy is still a menace, particularly, in refugee camps. In 1982, two thousand cases of scurvy were found in Somali refugee camps.[1] Between April and August of 1986, over four thousand cases were reported in a similar camps in eastern Sudan.[2] In African refugee camps, the prevalence of scurvy reportedly ranges from 14 to 25%. These refugees have shown dramatic improvement following the administration of vitamin C. Few realize that the standard relief provisions provided for African refugees are inadequate in vitamin C. They consist of a mixture of cereals, legumes and oil providing 1800 cal. per person per day. Usually, their diet is not complimented with fresh fruits, or vegetables.

Our patient, the prevalence of scurvy in African refugee camps and a remark made years ago by one of my former professors, that "during the 17th and 18th centuries over a million seamen died from scurvy" intrigued me and lead to this brief historical review.

According to Sir James Watt, Gilbertus de Aquila was the first to recognize clinical scurvy and wrote about it in his "Compendium Medicinae" in 1227.[3] Gilbertus advised the seamen of his day to carry, "an ample supply of apples, pears, lemons and muscatels as well as other fruits and vegetables." Sir James thought that such knowledge probably accounted for the absence of any adequate description of clinical scurvy before the 15th century. Others disagree. They believe the short duration of sea voyages before the 15th century, along with the propensity to stay close to shore for safety's sake, precluded the development of scurvy.[4] Columbus's first voyage to the New World took only 34 days. Only after improvements in navigation, the discovery of the Indies and the resulting long sea voyages did scurvy appear en-masse.

Table 1 lists the death toll extracted by Scurvy from the crews of several famous sea-captains of the 15th and 16th centuries. In 1497, Vasco de Gama found a passage to India via The Cape of Good Hope. During this voyage he lost 93 of his 148 men to nutritional disease, notably scurvy.[3] de Gama was away from land for four months. Magellan faired somewhat better during his circumnavigation of the globe in 1519. He lost 76 of his 237 men to scurvy. Some contend, it was the ingestion of Patagonian wild celery by de Gama's crew, that prevented greater loss of life during the Pacific leg of their journey. Sixty years later, Drake's crew also suffered from scurvy during

*Professor of Medicine, Diabetes Hospital, UAB School of Medicine

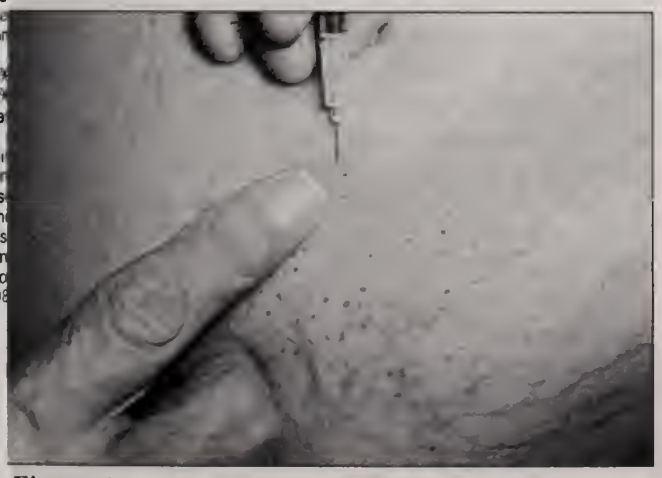

Figure 1

Figure 2

their 68 day trek across the Pacific.[6] Drake provisioned his ship with fruits and vegetables wherever possible. He also noted the rapidity with which the ingestion of lemons, coconuts and cucumbers abolished scurvy during his stay in the Celebes.

In 1591, Lancaster made a similar observation.[6] While returning from the East Indies, he reprovisioned his scurvy ridden ship at St. Helena. Like Drake, he observed the miraculous effects of fresh fruit on his crew and wrote, "the things, oranges and lemons cured his men." Lancaster was unaware that the Dutch had actually settled Cape Town and St. Helena as a means of reprovisioning their East India men with fresh fruits and vegetables.[7] The Dutch had accidentally discovered the antiscorbutic effects of lemons and oranges, while moving cargoes of fruit from Spain to Holland.[3] Thereafter, they astutely provided their seaman with fruit and vegetables, even growing the latter aboard ship.[8] Sauerkraut, which is rich in vitamin C, was provided thrice weekly to all Dutch crews.

Ten years later (1601), Lancaster had to return to the East Indies. This time, he had the foresight and ingenuity to provision his flagship, *The Red Dragon*, with enough lemon juice to give each member of the crew 3 tablespoons daily.[9] None was provided for the crews of the other 3 ships in his squadron. After two months at sea, scurvy ravaged the latter's crews while Lancaster's men were spared. When the supply of lemon juice was exhausted and scurvy began to afflict his men, Lancaster took on fresh stores of oranges and lemons in Madagascar. The results were striking and proved to Lancaster the benefit of fresh fruits and lemon juice.

Unfortunately, this priceless knowledge was not widely disseminated amongst the hierarchy of the British Admiralty or Merchant Marine. Among those who learned of Lancaster's experience were: 1) John Woodall, who, when he became Surgeon General of the British East India Company ordered all East India men to carry lemon juice for their crews proclaiming it "is a precious medicine and well tried;"[10] 2) Lord de la Warre, a victim of scurvy himself, stressed the value of lemons and oranges as antiscobutics in a report to the Virginia council [11] and stated Heaven has kindly provided these fruits as a specific for the most terrible of evils. 3) Sir Richard Hawkyns who wrote, "this is a wonderful secret of the power and wisdom of God, that hidden so great an unknown vertue in the fruit to be a certaine remedy for this infirmity."[12] 4) William Cockburn (1696), a physician with the Royal Navy, who noted in his treatise on "Sea Disease" that "refraining from the sea diet and living upon green trade (vegetables) on shore proves an absolute cure."[13] 5) John Moyle (1693) who wrote when "— fruits as lemons and oranges are freely taken — there's no fear of scurvy."[14] 6) James Lind, who compiled a chronological history of scurvy and thus learned of these reports.[12]

TABLE I
Scurvy At Sea

Voyage	Crew	Scurvy Deaths	Antiscorbutic
1497 Vasco de Gama	148	93	
1519 Magellan*	237	76	Wild Celery
1598 Van Neck -	–	–	Lemon & Sauerkraut
1577 Drake*			Fruit & Vegetables
1601 Lancaster -	424		Lemon Juice
1746 Anson	1995	626	Balsam & Wine

DESTINATION:

* CIRCUMNAVIGATION
- EAST INDIES

TABLE II
Royal Navy Rations
(1720-1750)

FRESH PROVISIONS

1 lb	-	Biscuit/Day.
1 1/2 lb	-	Wheat Flour Pudding/Week.
	-	Boiled Ground Oats (Burgow).
	-	Boiled Peas.
2 lb	-	Salt Pork/Week.
2 lb	-	Salt Beef/Week.
		Fish Caught At Sea.

Lind's interest in scurvy stemmed from two major events. One was his assignment as a surgeon's mate aboard the *HMS Salisbury* attached to the channel fleet. During a ten week exercise in the Spring 1746, 80 of the 350 men on the *Salisbury* developed scurvy. During a repeat exercise in the Spring of 1747, 400 of the 4000 men in the channel fleet were afflicted similarly. Here, Lind obtained "hands-on" clinical experience with scurvy.[12]

The second event was the greatest Naval nutritional disaster of all times. This occurred during the circumnavigation of the globe by his friend and patron, Admiral Sir George Anson. The lessons of Lancaster, Cockburn and others were apparently forgotten by the time Anson undertook his tragic voyage (1740-1744).[15] Instead of fruit, vegetables, and lemon juice, Anson provided his crew with a pill containing antimony, balsam and wine as an antiscorbutic.[12] This was a costly move. Shortly after sailing from England, scurvy became rampant among Anson's six ships of the line. By the time, they reached Patagonia, 324 men had died already from typhus, scurvy and malaria. Two of his ships failed to make headway round Cape Horn and had to turn back.* Another vessel, *The Wager* ran ashore at Tierra del Fuego, as the result of a nightblind Captain. Finally, with his two remaining ships, Anson assailed the Pacific. Again, Scurvy struck with devastating

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A Christian Organization — Operated on Christian principles.

results, forcing Anson to burn one of his ships in order to man the other, *The Centurian*. Less than 200 of Anson's original complement of 1995 men returned safely to England. Nonetheless, his expedition was considered a success, because with only 30 able bodied men, he captured the Spanish gallon, *Canadonga*, carrying a treasure of 1,500,000 gold dollars. Men were obviously quite expendable in that era.

The havoc wought by scurvy among Anson's crew was chronicled by the Reverend Richard Walter, Chaplin aboard the *Centurian*.[15] His clinical description of the disease paints a vivid picture of the suffering caused by scurvy. "The common appearances are large discolored spots over the whole surface of the body, swelled legs, putrid gums, (Fig 3) and above all, an extra ordinary lassitude of the whole body, especially after any exercise, however inconsiderable. And this lassitude at last degenerates into a proneness to swoon on the least exertion of strength, or even the least motion. — At other times, the whole body, but more specially the legs, were subject to ulcers the worst kind, attended with rotten bones and such a luxuriancy of fungus flesh as yielded to no remedy. — the scars of wounds which had been for many years healed were forced open again by this violent distemper: of this there was remarkable instance in one of the invalids on board the *Centurian*, who had been wounded about 50 years before at the Battle of the Boyne —in his being attacked by scurvy, his wounds, in the progress of his disease, broke out afresh, and appeared as if they had never been healed: Nay, what is still more astonishing, the callous of a broken bone, which had been completely formed for a long time, was found to be hereby dissolved and the fractures seemed as it had never been consolidated. — It was no uncommon thing for those who were able to walk the deck and do some kind of duty to drop dead in an instant on any endeavor to act with their utmost vigor."[15]

Walker's memoirs suggest that multi nutritional deficiencies evolved amongst Anson's crews.[15] Many of his seamen had been "pressed" or were in ill health at the start of the voyage. Night blindness occurred amongst some during the voyage and the tendency to drop dead suddenly suggests a thiamin deficiency. Sydenham had written, "where the scurvy ends, dropsy begins." Thiamin deficiency can evolve even more rapidly than scurvy and has been noted to develop within three to four weeks on a deficient diet. Thiamin is plentiful in beef and pork. So in essence, Anson's crew probably had sufficient thiamin early in their voyage. However, there was a tendency for salt pork and beef to become rancid with time. If this happened thiamin deficiency could have evolved rapidly. The persistence of edema despite the use of oranges and lemons by some crews suggests this possibility. Probably, thiamin deficiency was a frequent compan-

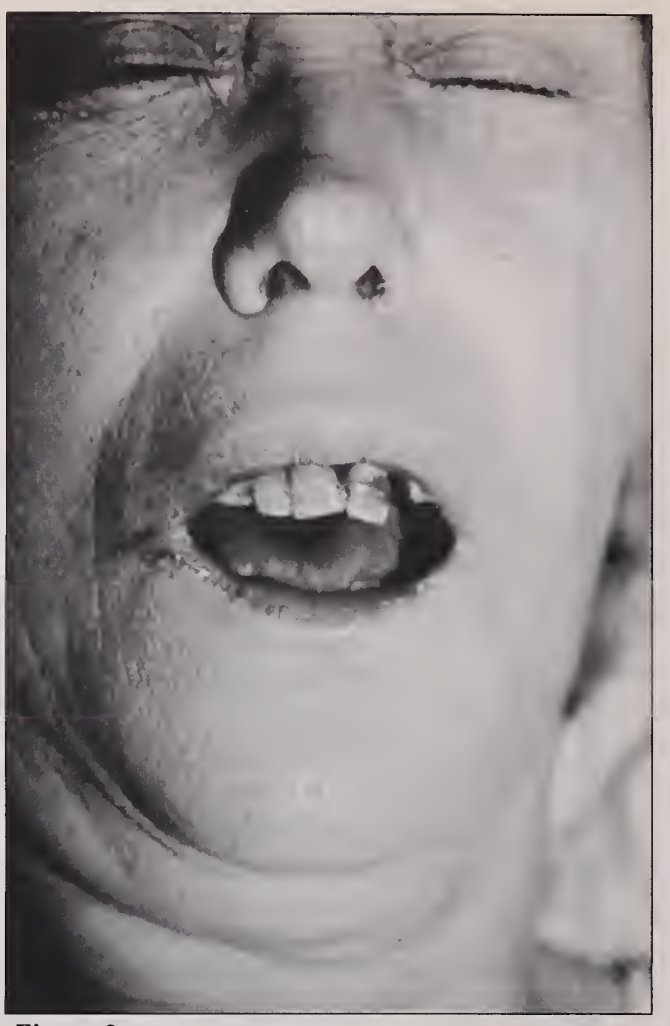

Figure 3

ion to scurvy on long voyages, but scurvy was the major affliction of seamen n those days.

Anson's disaster and Lind's personal experience with scurvy led him to study the disease and to eventually publish his classic, "Treatise on Scurvy." He divided this into three parts. The first dealt with suspected etiologies relating to scurvy. Here, he tactfully presented evidence to refute the suspected causes of scurvy namely, infection, putrid air, salt water and heredity. The second, dealt with the clinical aspects of scurvy, its prophylaxis and its cure. The third part contained his masterful chronological review of the medical literature dealing with scurvy. Undoubtedly, the latter was the impetus for his later therapeutic experiment.

Lind had read the reports of Lancaster, Cockburn, Moyle and others and found that Ramberini (1581), Bachstrom (1734), and Krameri (1744) had each reasoned that an improper diet led to scurvy.[12] By 1747, Lind reached the same conclusion. The British seaman's ration of that day was considered adequate but by today's standards it was lacking nutritionally. (Table II)

Figure 4

Lind was also aware that when the British fleet operated in conjunction with the Dutch fleet, there was a striking difference in the prevalence of scurvy.

So on April 20, 1747, aboard the *HMS Salibury*, Lind undertook his unique therapeutic trial.[12] Twelve sailors with scurvy were given a basic ration. (Table III) The men were divided into six groups of two each. Each pair received a basic ration (Table III) plus a therapeutic supplement as shown in Table IV. Two patients were given two oranges and one lemon daily. However, the supply of oranges and lemons was limited. After six days, Lind wrote, "having consumed the quantity that could be spared" the trial ended. Lind was amazed at the results. One of the patients, who had received the fruit, returned to duty in six days. The other recovered sufficiently to be put in charge of the remaining ten ill patients. One hundred fifty years after Lancaster's remarkable report, Lind again showed the therapeutic value of lemons and oranges. In his report to the Admiralty, he recommended fruits as a cure for and as prophylaxis against scurvy. The issue appeared to be settled.

But, politics were as persuasive then as now. Lind had dedicated his "Treatise on Scurvy" to Lord Anson. Subsequently, Anson became the first Lord of the Admiralty and he appointed Lind to command the new Naval hospital at Portsmouth. This appointment came, "over the heads" of several senior officers. Most likely, this explains, why ten years later, the British Admiralty still refused to accept Lind's recommendations and to state officially, that, "it did not consider lemons and oranges advocatious against scurvy." It was not until 1781 that Lind's recommendations were accepted as an official Naval policy and then only through the political influence of Sir Gilbert Blane, a disciple of Lind's.

However, Lind's recommendations were not entirely ignored. Captain Cook knew of them. In his attempt to circumnavigate the world in an easterly direction, (1772-1775) he provided his crew with saurkraut three times weekly and made certain that his men ate fresh fruits and vegetables at every landfall. Legend has it that despite his kindness to his crew, he threatened to flog any man who did not eat his fresh provisions. In reality, he persuaded the crew to eat fruits and vegetables by serving them to his officers in full view of the crew. The fact that he lost only one man to scurvy during his long voyage, rather than his remarkable feats of navigation, was the reason the Royal Society awarded him its highest honor, "the Copley Medal."[3]

Unfortunately, Cook confused the situation regarding prophylaxis for scurvy. He carried malt as his antiscorbutic and later promoted its use for the prevention of scurvy in deference to Lind's recommendations. For two centuries, the value of lemons and oranges as antiscorbutics have been recognized by the Spanish and the Dutch. But Cook's recommendations and his remarkable reputation led them to substitute malt for fruits with disastrous results. Germinating grain does contain vitamin C but much of this is lost when the malted grain is kiln dried.

Finally when the Admiralty adopted Lind's recommendations, scurvy appeared to vanish from the British Navy. In 1776, almost 2000 patients were admitted to Portsmouth hospital with scurvy. By 1806, only one patient was admitted with that diagnosis. Sir Gilbert Blane wrote that the eradication of scurvy enabled a fleet of the same striking force to be maintained at sea with half the number of men and ships.[4] Before 1781, the British fleet rarely was able to stay at sea for more than two months before scurvy rendered it unserviceable. Lind's recommendations had made two ships the equivalent of four.

Lord Nelson quickly perceived the value of lemons and made them available throughout his fleet. Some believe this simple precaution played a major role in Nelson's defeat of French at Trafalgar. His men were in better physical condition due to the absence of scurvy.

Why then are British sailors called Limey's? Well, no sooner had lemon juice been authorized as the antiscorbutic then its use was questioned clinically and financially by the British. Several reports had reached the Admiralty, that ROB (an evaporated form of lemon juice) failed to prevent scurvy. They were unaware that the heat used to prepare ROB destroyed its vitamin C content. In contrast, Lind's method of concentrating the lemon juice did not. Further, the fleet's demand for lemons raised their price drastically. So, in 1875 cheap West Indian lime juice was substituted for concentrated lemon juice without the benefit of a therapeutic trial. Limes contain less than one third of the ascorbic acid present in lemons or oranges. Before long scurvy, again began to appear with regularity amongst British seamen, and it devastated a British polar expedition in 1875-1876. The coup de grace came in 1900 when Lord Lister stated before the Royal Academy that vegetables and lime juice were ineffective as antiscorbutics. As a result, Scott and his expedition to the South Pole in 1911 took no antiscorbutics with them. Subsequently, his demise and that of his companions was attributed to a combination of hypothermia and scurvy.[3] Those who did survive ate the eyes of seals which are rich in ascorbic acid.[16] One year after Scott's demise, Hopkins reported the importance of accessary food factors in good nutrition.[16] Events moved rapidly thereafter. By 1928, Albert Szent Gyorgi, isolated ascorbic acid from oranges and cabbages, and the adrenal gland but did not recognize it as a vitamin.[17] Four year later, ascorbic acid was identified as vitamin C by Waugh & King.[18] Again the issue appeared to be settled; vitamin C prevented scurvy. However, in 1975 Vallance pointed out that the basic diet of the British Antarctic Survey team still was low in vitamin C.[19] He also showed that concentrated orange juice contained ample vitamin C, thus justifying Lind's concept. The last episode of vitamin C deficiency at sea, to my knowledge, occurred among the crew of a German surface raider during World War II.[20] Each member of the crew took 50 mg of vitamin C daily, but the tablets had deteriorated during storage.

Today we know that vitamin C is a powerful reducing agent that protects the capillary basement membrane and that it serves as a form of intracellular cement.[21] It is believed to protect antioxidants, such as vitamin E, essential fatty acids and vitamins from destruction. By hydroxylation, it maintains the folic acid co-enzymes, dehydro and tetrahydro folic acid in reduced form. Vitamin C is readily absorbed from the small intestine and little is lost in the feces. Excretion is mainly in the urine, either as ascorbic acid or as one of its metabolites. Ascorbic acid is found in most tissues with the largest concentrations being in the adrenal gland, brain, pancreas, spleen and kidney in that order. Ample concentrations are also present in the liver, lungs and heart.

The latest RDA for ascorbic acid is 60 mgs per day. Individuals who ingest a diet containing 75 mgs per day maintain an average body pool of about 1.5 grams. Table V shows the time found necessary for certain physical findings to evolve in two human experiments where the volunteers were fed a vitamin C deficient diet.[22-23] In one, the patients plasma ascorbic levels fell to O within 41 days; leucocyte ascorbate levels were depleted by 84 days. Perifollicular hyper-

TABLE V
Experimental Scurvy - Human
Evaluation of Clinical Findings on a
Vitamin C Deficient Diet

	Bartley et al. 10 patients		Hodges et al. 6 patients	
	Patients	Weeks	Patients	Weeks
Follicular Hyperkeratosis	6\10	21	2/6	11
	10/10	26	4/6	12
Follicular Hemorrhages	6/10	26		
	10/10	35		
Hemorrhage, Intradental	0	26	4/6	6-13
Gum Swelling	9/10	36		
Impaired Wound Healing	6/10	30	0/6	14
Cardiac Pain	2/10	30		
Knee Effusions	1/10	30		
Diet	solid		liquid	
Vitamin C Content	1 mg/day		0	

keratotic follicules appeared at 134 days. Wound healing was normal at 40 days but became impaired after 182 days. Bleeding gums occurred late in the disease and only in the presence of gingivitis. (Fig 3) Edentulous scorbic patients do not bleed from their gums. Peripheral neuropathy usually follows bleeding into nerve sheets, while sheet hemorrhages occur as a result of subcutaneous bleeding often induced by friction. (Fig 4) Subperiostial hemorrhage may occur and bleeding into joints is encountered late, in the disease. These lesions like the petechiae and ecchymoses found on the skin result from the capillary basement defect. Anemia is common and may develop secondary to either vitamin C or folate deficiency and sometimes to a lack of iron. Iron absorption is impaired in scurvy.

Today, vitamin C deficiency that is not clinically overt is best assessed by measuring the leucocyte ascorbate level. Normal values are around 150 mg/l. A valuable of 75 mg/l or less suggests the patient is at risk for developing clinical scurvy.

Treatment with 100 mgs of ascorbic acid twice daily, orally or parenterally leads to rapid clinical recovery, with clearance of most clinical findings within one or two weeks.

We've come a long way in our understanding of the evolution, the diagnosis and treatment of this former deadly scourge of the sea. One can only admire those ancient men of the sea for their daring and for the chances they took to advance mankind's causes. One can only feel for the suffering and death they endured, due to lack of knowledge about a single dietary factor. How blessed are their descendants, now that the secret of the terrible disease that was and is scurvy has been broken. ❑

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1 Coiled hairs (perifollicular hyperkeratosis)
2 Follicular hemorrhage
3 Putrid-bleeding gums Courtesy of Dr. Douglas Heimberger
4 Sheet hemorrhages

* This also happened to Captain Bligh and the Bounty, during Bligh's first attempt to reach Tahiti.

Towards Less Painful Local Anesthesia

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Abstract

Local anesthesia, used for numerous procedures in all fields of medicine, has the drawback of providing significant pain upon injection. Twenty-eight volunteers were asked to compare a subcutaneous injection of plain lidocaine with an injection of lidocaine plus bicarbonate. Twenty-four of the twenty-eight volunteers reported less pain with the buffered lidocaine. The dilution of 1 part bicarbonate to 10 parts plain lidocaine produced a solution that was less painful and better tolerated.

The local anesthetic lidocaine is used prior to many minor and major surgical procedures. Although it induces adequate anesthesia, the pain of injection is nearly always of considerable discomfort to the patient. There are numerous factors that have been shown to influence the pain of injection. These include speed of injection, size of needle used, area of the body injected, and simply individual patient characteristics.[1] Since lidocaine comes as an acid solution, local tissue irritation is likely the primary source of pain.

Methods

In an effort to investigate the effects of pH and painful injections, a simple, randomized, double-blinded study was organized. A 10:1 dilution of 1% plain lidocaine (Astra) and 8.4% sodium bicarbonate (Abbott) was prepared. Aliquots of .5 cc were drawn into tuberculin syringes with 28 gauge needles. (Small needles were used to minimize the pain and effects of needle penetration of the skin.) Another solution of 1% plain lidocaine without bicarbonate was likewise prepared. The pH of nonbuffered lidocaine was 6.4 and with the addition of 1 cc of $NaHC0_3$ the pH rose to 7.2. Twenty-eight healthy adult volunteers, ranging in age from 22 to 63 were asked to participate in the study. The two sets of syringes were placed in containers marked "A" and "B". The volar surface of the forearm was prepped with an alcohol pad and solution "A" was injected intradermally in the right forearm. A short time interval was given to allow the pain of injection to subside and the solution was then injected over a two-second span. The procedure was repeated using solution "B" in the left forearm. The volunteers were then asked two questions: (1) Could you tell a difference between the two injections? and (2) Which injection was associated with less pain?

Results

Twenty-four of 28 subjects experienced less pain with the solution "A" (with added $NaHC0_3$), two subjects reported no difference noted while the remaining two reported less pain with the nonbuffered lidocaine. These results are statistically significant with $p < .01$.

Discussion

The mechanism of action of local anesthetics are pH related. Local anesthetic agents are weak bases, and as such exist in solution in equilibrium between the ionized and free base form. The pK_a of lidocaine (the pH at which 50% is ionized) is 7.8. Since local anesthetics are marketed in solution as the hydrochloride salt (pH 5-7), the majority of the drug exists in the ionized form. However, it is the nonionized form (which increases as the pH increases)

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which best diffuses through the tissues and is transported across the epineurium and oxonal membranes. Once inside the axon, the local anesthetic is likely reequilibrated, according to axonal pH, and the ionized form blocks the sodium channels and neurotransmission.[2,3,4]

The addition of sodium bicarbonate to buffer lidocaine to a more physiological pH demonstrated a dramatic reduction in the pain of injection. Many of the subjects indicated a significant difference in the two injections, many reporting no pain at all with the buffered lidocaine solution.

In our experience, this simple technique has many simple applications. Office procedures that require local anesthetic are much better tolerated, especially when digital blocks are required. Use of this technique has been particularly helpful in pediatric patients resulting in much better patient compliance. Colorectal procedures done with pudendal blocks using buffered local anesthesia result in a significant decrease in pain during infiltration of local anesthesia. In many cases, there is disappearance of the usual "wink" of anal sphincter constriction.

Lidocaine is marketed at an acidic pH to increase shelf life and solubility. At a more physiologic pH, the amides are unstable and subject to degradation reactions. The addition of $NaHC0_3$ to lidocaine or bupivicaine solutions has been shown to be safe with no compromise in the efficacy of the drug. In fact, buffering may speed the onset of action of these drugs.[6] General use of lidocaine buffered with $NaHC0_3$ by surgeons at our institution appears to clinically confirm these studies.

With the addition of epinephrine to lidocaine, the pH is usually 5-6, lower than plain lidocaine. Additional bicarbonate (usually twice the dose used with plain lidocaine) is used to bring the final pH into the physiologic range.

Summary

The addition of $NaHC0_3$ as a buffering agent to the local anesthetic lidocaine can significantly reduce the pain of injection. A simple solution is made using 10 parts plain lidocaine and 1 part $NaHC0_3$ (1 meg/ml) mixed just prior to injection.❑

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Hazards of Aging

William I. Silvernail, Jr., M.D., F.A.C.S.

Life expectancy in the United States is approaching 82 years for women and 75 years for men. The projected growth in this decade for the over 65 age group is 37 million persons. For the 9 over 85 age group it is 7 million. At age 65, 85% of the men and 78% of the women are living independently at home. 12% and 16% respectively are living at home with assistance, 3% and 6% are in nursing homes. The favorable aspects of those figures fall precipitously as age 85 is passed. Only 54% of the men live independently at home, 31% are at home with help and 15% are in nursing homes. For women the figures are even more severe with 38% independent, 37% at home with help and 25% in nursing homes.

A couple of things are immediately apparent upon reviewing these statistics. The reduced mortality, due to the reduction of and prolonged survival from lethal diseases,results in more individuals falling prey to non-lethal diseases. Predictably there will be a higher hospital census of elderly, fragile, seriously ill Medicare patients. With Medicare paying for the majority of this healthcare, the average annual cost of each Medicare beneficiary will increase substantially. This will be multiplied by the ever increasing Medicare hospital inpatient volume. Second, the financial burden on the Medicare patient admitted to a nursing home will be enormous. The percentage of nursing home admissions per age group may well remain constant, but the base population from which that percentage is drawn is getting larger. With the demise of the Catastrophic Care Act the majority of long-term care costs are not covered by Federal entitlement. Nursing home beds are in sufficient for the influx and not everyone can manage the necessary out-of-pocket expenses. The amount and number of privately purchased long-term care insurance policies is minuscule.

Successful containment of these health care costs will be related to our ability to prevent and/or cure those age dependent diseases and disorders that will produce the greatest need for long-term care.[1]

The escalating costs of two specific age dependent disorders were studied and reported by Drs. Schneider and Guralnik.The two conditions, which contribute significantly to disability, nursing home admissions and long-term care are dementia and hip fractures. Dementia is a tough nut to crack and a solution may be dependent on a cure or palliation of Alzheimer's disease, the most common cause of dementia.

Falls and hip fractures are another matter entirely. Here there are a number of intrinsic and extrinsic factors on which we can exert a favorable influence. In white women aged 85 and above the incidence is approximately 2% per year. 20% of these women do not survive the first year after the fracture and another 20% do not regain the ability to walk without assistance.The number of hip fractures is projected to be 300,000 annually by the year 2000.[2]

From a JAMA, April 18, 1990 editorial we learn that estimates of the annual incidence of falls in the elderly range from 20% to 40% .However, only 6% to 10% result in injury (Arch Intern Med. 1989;149;2217-2222), most commonly fractures occur, but also soft tissue injuries, hematomas, lacerations, sprains, and dislocations. Morbidity may also be as intangible as a fear of further falls, which can cause an older person to limit activity and reduce independence.

Mortality after a fall is disproportionately high in the elderly. Although only 12% of the population in 1987 (the latest year for which virtually complete data are available), those older than 65 years accounted for 75% of deaths caused by falls, according to the National Safety Council, Chicago, Ill.

Multiple factors interact to produce a fall. Biologic risks include cognitive, neurological, musculoskeletal, visual, auditory, and proprioceptive abnormalities.

Environmental factors such as ill-fitting shoes, poor lighting and slippery surfaces play a role. Judgment, medication use, physical fitness and other such factors also contribute.

Research up to this time has concentrated on delineating the epidemiology of falls and identifying risk factors.The next step is to prevent falls by modifying those risks.

Another multiple risk factor intervention trial to be funded by the National Institute of Health initiative

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will be conducted by Mary Tinetti, M.D., of the Department of Medicine at Yale University in New Haven, Conn, and associates. In previous work (New England Journal of Medicine 1988;319:1701-1707), they found that "it was the accumulated effect of multiple risk factors that determine their [elderly's] risk for falling,' according to Tinetti. The logical extension of this is that "the more of the risk factors that you can identify and intervene on and either eliminate or more likely ameliorate in an elderly population, the lower their risk will be."

The investigators plan to target postural hypotension, medication use, upper- and lower-extremity disabilities, foot problems, balance and gait abnormalities and environmental factors for intervention. Outcomes will include not only the incidence of falls but also the extent of mobility and development of fear of falling.[3] A companion article informs us that mobility, strength and balance can be improved with exercise.[4] A series of pilot fall intervention studies have been done with large, restrictive and cumbersome transport apparatus. A more promising device has been the passive air bag which pads the hips and knees with 2.5 cm of air to cushion the fall.

Areas of intervention available to the individual physician and therapists include a survey of the environment for hazardous obstacles; impediments and distances by home health, a tailored exercise program by physical therapy for the patient which includes family instructions and can be continued in the home environment; predischarge assessment of medications that could affect mentation and produce postural hypotension or impaired equilibrium; discharge planning that includes post discharge follow-up and assessment for fall related factors; bed alarms; evaluation and treatment of osteoporosis; confirm safe use of ambulation devices such as canes and crutches; instruction in the management of stairs and railings; correction of syncope producing arrhythmias and stabilized diabetes. Especially important is early post discharge physician re-assessment with discussion of fall related factors and emphasis on compliance with instructions.

The risk factors for falls and future infirmity and outlined above. The list is by no means exhaustive, and I am certain many pertinent areas were left unaddressed. Surely, as you think over the number of preventable complications of aging that you have managed in your practice, you can make significant inroads into geriatric problem solving and preserve life and limb in the elderly. ❑

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Intensive Care Experience With Intravenous Cimetidine

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This study reports the results of a retrospective review of the case records of 28 seriously ill patients who received intravenous cimetidine (generally 300 mg q8h) for the treatment of gastric discomfort and/or hemorrhage or for prophylaxis against stress-induced ulcers. Most of these patients presented with complex symptoms arising from a variety of pathological conditions including ischemic heart disease, myocardial infarction, cerebrovascular accident, pneumonia, and trauma. A number of patients also had acute gastrointestinal hemorrhage. Over two-thirds of the patients treated with intravenous cimetidine demonstrated a reduction in gastrointestinal symptom severity, and a statistically significant reduction in the mean severity rating for all patients was observed. Adverse reactions reported during cimetidine therapy were generally mild to moderate in severity and required discontinuance of therapy in only one patient. The most common complaint was headache. Intravenous cimetidine administered q8h offers a safe and cost-effective approach to H_2-receptor blockade and reduction of gastric acid secretion in patients who are temporarily unable to take oral medication.

Introduction

Treatment of gastrointestinal hemorrhage and the prevention of stress-induced ulceration are major therapeutic challenges in intensive care medicine.[1-3] Patients at risk for the development of stress-induced ulcers and gastrointestinal bleeding include those with myocardial infarction, respiratory failure, hypotension, sepsis, liver failure, head injury, burns, or recent extensive surgery.[4] The pathogenesis of stress-induced ulceration is not completely clear, but it may involve several factors, including gastric acid concentration, bile salts, and the state of the gastric mucosa.[4] Agents that block the action of histamine at the H_2 receptor reduce gastric acid secretions and raise gastric pH and are often administered to critically ill patients to treat gastrointestinal bleeding associated with disease and also as prophylaxis against stress-induced ulcers.[5,6] Drugs such as cimetidine and ranitidine are commonly administered intravenously in bolus form to decrease gastric volume, increase gastric pH,

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TABLE 1
Demographic Data for the 28 Patients Whose Records Were Analyzed

	Mean	Standard Deviation	Range
Male (n=15)			
Age (years)	63.9	17.3	36-91
Weight (lbs)	175.4	29.6	135-220
Female (n=13)			
Age (years)	70.4	18.2	31-94
Weight (lbs)	131.4	18.9	95-152

TABLE 2
Diagnosis For Patients Whose Records Were Included in the Study

Diagnosis	No. of Patients
Gastroenteritis/esophagitis/ulcers	9
Myocardial infarction	4
Cerebrovascular accident	3
Angina/chest pain	2
Bronchitis	2
Trauma	2
Coronary artery disease	1
Pancreatitis	1
Pneumonia	1
Ruptured aneurysm	1
Post-surgical complications	1
Thrombosis	1

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and reduce the incidence of stress ulceration.

While the safety and efficacy of single-dose administration of H_2 antagonists such as cimetidine has been extensively documented,[7] the effects of longer-term intravenous treatment with this drug are not as well known. This report provides retrospective data from 28 patients who were treated with intravenous cimetidine for a period of one or more days. The data from these case records demonstrate that short-term intravenous therapy with cimetidine is safe and effective in reducing the gastrointestinal symptoms associated with a variety of disease states.

Results

The demographic data for the 28 patients (15 males and 13 females) included in this retrospective study are summarized in Table 1. The average age (± standard deviation) of the male patients was 63.9 ± 17.3 years and for the female patients, 70.4 ± 18.2 years. The patients included in the study were hospitalized for a variety of different conditions (Table 2), including gastroenteritis, myocardial infarction, cerebrovascular accident, and trauma. Five patients presented with gastrointestinal bleeding at the time of diagnosis.

Most of the patients were treated with 300 mg cimetidine q8h. The average duration of therapy was 4.8 ± 2.6 days and the longest period of treatment for any patient was 11 days. Six of 23 patients (26.1%) for whom data were available received other antacid medication, in most cases Mylanta, during the course of therapy. All patients were evaluated for severity of gastrointestinal symptoms at the initiation of cimetidine administration, intermittently (usually every day or every other day) during the course of treatment, and at the end of therapy. Severity of symptoms was rated, post facto, on a three-point scale, with 1 = mild, 2 = moderate, and 3 = severe.

Therapy with 300 mg cimetidine q8h reduced the severity of gastrointestinal symptoms for most of the patients whose records were reviewed. Of 25 patients evaluable at both the beginning and end of therapy, 68% had reduced symptom severity scores. Intravenous cimetidine significantly reduced the mean symptom severity for all of the patients included in the review from 2.8 ± 0.4 m at the beginning of treatment to 1.9 ± 0.9 at the end of treatment ($p<0.00005$, rank sum test). Figure 1 summarizes these results.

The adverse reactions reported for patients included in the review were generally mild to moderate in severity and did not require discontinuation of cimetidine. The most common adverse reaction was headache, which was reported by five patients and required withdrawal of cimetidine in only one.

Treatment with intravenous cimetidine resulted in the development of abnormal laboratory values in only three (13%) of the 23 patients for whom laboratory data were available. One patient experienced a reduction in hepatic enzymes. Another exhibited decreased hemoglobin, hematocrit, and red blood cell count, and an increase in white blood cell count on two of the three days on which she was treated. In addition, one patient exhibited an elevated white blood cell count on the first day of cimetidine therapy. Because of the serious and complex nature of symptoms presented by the patients included in this retrospective analysis and the relatively short courses of cimetidine therapy, it is very difficult to know which, if any, of the adverse reactions or abnormal laboratory values can be attributed to treatment with cimetidine.

Intravenous administration of cimetidine also had no effect on blood pressure in these patients. Mean baseline blood pressure was 124.8 ± 16.9/74.7 ± 11.4 mm Hg compared to 117.7 ± 18.4/ 70.8 ± 11.1 mm Hg at the end of treatment. There were no significant differences between the pre- and post-treatment values for either systolic or diastolic blood pressure ($p>0.1$, paired t-tests).

It is worth noting that the cost of intravenous cimetidine therapy is substantially less than that of the other commonly prescribed H_2 antagonist, ranitidine. Our cost for a 5-day regimen of cimetidine 300 mg q8h is $42.00 while that for 50 mg ranitidine is $73.95. Lawrie and Cade[4] have demonstrated that 1,000 mg/day cimetidine and 200 mg/day ranitidine have equivalent effects on gastric pH and provide the same protection against stress-induced ulceration. Thus, effective H_2 antagonist therapy with cimetidine q8h can be achieved at approximately one-half the cost of that for ran ranitidine.

Our experience with intravenous cimetidine has been very positive. It is now used routinely in our hospital for prophylaxis against stress-induced ulceration and gastrointestinal bleeding. We have found that intravenous cimetidine, 300 mg q8h, provides excellent prophylaxis against ulceration in seriously ill patients and that it also provides rapid relief of gastrointestinal symptoms. These benefits are almost invariably achieved without the occurrence of any adverse reactions or abnormal clinical laboratory values. The following case reports serve to highlight the safety and efficacy of cimetidine therapy in controlling gastrointestinal symptoms in seriously ill patients.

Case Reports

An 84-year-old male was admitted to the hospital for general weakness and evidence of gastrointestinal bleeding. The patient had a history of angina pectoris, atrial fibrillation, and diabetes. He also had undergone surgery for gastrointestinal ulcers 12 years prior to admission. Treatment was initiated with intravenous cimetidine 300 mg q8h and the patient was maintained on this regimen for five days. Symptom severity, rated severe at the

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beginning of treatment, improved to mild by the end of the five-day course of cimetidine treatment. The patient's overall condition was much improved by the end of the treatment period and he was subsequently discharged from the hospital.

A 72-year-old woman presented at her doctor's office with pleuritic chest pain for which she was treated with a combination of acetaminophen, indomethacin, and erythromycin. The patient had a history of hematuria and hypertension. Two days prior to admission to the hospital, she developed nausea and vomiting and was unable to eat. On admission, she was treated with intravenous cimetidine (300 mg q8h). At the beginning of therapy, gastrointestinal symptoms were rated as severe. Cimetidine treatment was continued for three days. During that period, both the nausea and vomiting resolved and the patient was again able to eat solid foods. At the end of treatment, gastrointestinal symptoms were rated as mild. The patient was then placed on oral cimetidine (400 mg B.I.D.) and discharged from the hospital after one additional day of observation .

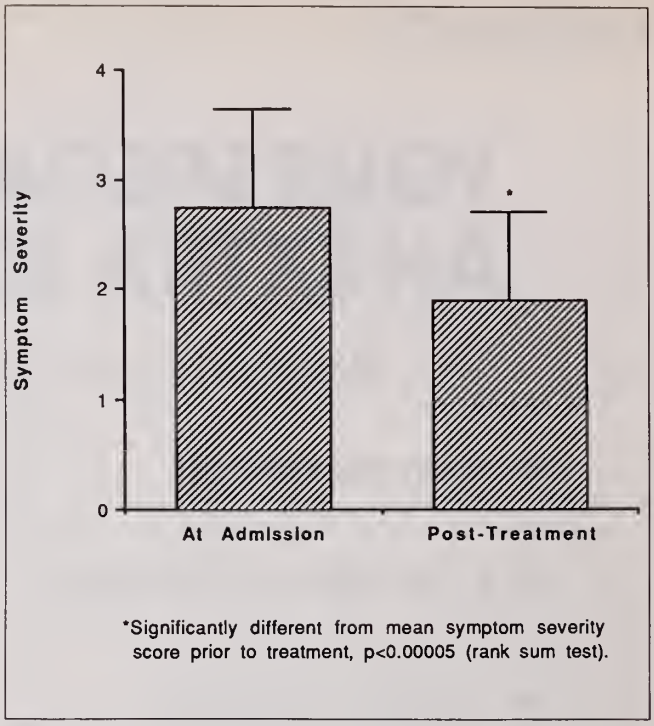

Figure 1

Discussion

The data provided in this retrospective analysis of case records indicate that short courses of therapy with intravenous cimetidine provide safe and effective treatment for the prevention of gastrointestinal bleeding. Short courses of treatment may also be useful in reducing gastrointestinal symptoms associated with a variety of severe illnesses. Over two-thirds of the patients whose records were included in this review demonstrated a reduction in symptoms during the course of therapy. When data from all patients were considered, the mean reduction in symptom severity score was highly significant.

The effectiveness of cimetidine therapy documented by this study agrees with previously published reports. Frank *et al.*[8] showed that administration of single intravenous doses of cimetidine (300 or 400 mg) to healthy volunteers produced a rapid and significant rise in gastric pH which was associated with a significant reduction in gastric acid secretions. These effects of single doses of cimetidine lasted for about six hours. Ostro *et al.*[9] demonstrated that "primed" continuous infusions of cimetidine (a 300 mg bolus followed by infusion of as little as 37.5 mg/hr) were sufficient to maintain gastric pH above 4.0 in seriously ill patients with respiratory failure, central nervous system disease, or multiple trauma. These effects of cimetidine on gastric acid secretion and pH explain the drug's proven effectiveness in preventing stress-induced ulceration.

Silvestri *et al.*[10] and Halloran *et al.*[5] showed that cimetidine was significantly superior to placebo in controlling gastrointestinal bleeding in patients with severe head trauma. MacDougall *et al.*[11] reported that cimetidine treatment is also effective for prophylaxis against gastrointestinal hemorrhage in patients with fulminant hepatic failure. McElwee *et al.*[12] showed further that intravenous cimetidine is as effective as antacids in preventing stress ulceration in burn patients.

Fraker *et al.*[13] also used continuous infusion of cimetidine (mean dose 3.2 mg/kg/hr) to combat postoperative hypersecretion of acids by patients who had undergone gastrinoma resection. They concluded that this regimen was effective in reducing gastric acid secretion until the time that patients could be placed on oral medication. As reported above, Lawrie and Cade[4] compared the efficacy of intravenous cimetidine and ranitidine for the prevention of acute upper gastrointestinal bleeding in seriously ill patients. They reported that daily infusion of 1,000 mg cimetidine or 200 mg ranitidine had equivalent efficacy in maintaining gastric pH above 3.5.

The records reviewed in this retrospective study also demonstrated that intravenous administration of cimetidine was well tolerated. The few adverse reactions noted were generally mild to moderate and treatment withdrawal was required in only one patient. These data coincide well with those from larger studies that have evaluated the safety of intravenous cimetidine.

Sawyer *et al.*[14] reported that the incidence of adverse reactions in 1,200 patients treated with cimetidine was no greater than that in 500 subjects who received placebo. Porter *et al.*[7] reviewed the records of 1, 189 patients who were treated with intravenous cimetidine. Only 40 (3.4%) of these patients reported adverse reactions during cimetidine treatment and, of these, only 23 were judged to have side effects "definitely"" or "probably" related to the drug. Porter *et al.*[7] also noted that there

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was no significant relationship between the dose of cimetidine (range 600 to 900 mg/day) and the incidence of adverse reactions. Their finding that 900 mg/day cimetidine was not associated with a substantial number of side effects is consistent with the results reported here.

Frank *et al.*[8] also reported only minor adverse reactions in healthy volunteers given single intravenous injections of 300 or 400 mg of cimetidine. As in the present study, the most common complaint was headache. Ostro *et al.*[9] reported no adverse reactions in 23 acutely ill patients who were given either bolus injections (up to 400 mg every 4 hours) or primed infusions (300 mg followed by up to 100 mg/hr) of cimetidine.

The low incidence of abnormalities in clinical laboratory values noted in the records that we reviewed is also consistent with data provided by others.[7,9]

Our observation of no significant changes in blood pressure as a result of cimetidine infusion differs somewhat from the results of Coursin *et al.*[3] They administered intravenous cimetidine 300 mg q8h to critically ill patients and observed small decreases in mean arterial pressure (MAP) at short intervals after dosing. Significantly subnormal values for MAP were observed only from only one to five minutes after cimetidine administration. Coursin *et al.*[3] observed no changes in either heart rate or cardiac output during this very brief period of reduced blood pressure. It is unlikely that we would have detected such small and transient changes in blood pressure if they had occurred in our patients. Furthermore, since most of our patients were being treated with a number of medications, many of them cardioactive, blood pressure changes over the course of treatment could not be related to cimetidine. In this regard it is also important to note that Mangiameli *et al.*[15] concluded that H_2-receptor blockade with cimetidine does not significantly affect cardiovascular dynamics.

In summary, our retrospective analysis of 28 case records showed that intravenous infusion of cimetidine (generally 300 mg q8h) provided significant relief from gastrointestinal symptoms in patients being treated for a variety of serious illnesses and trauma. Relief from gastrointestinal symptoms was generally achieved without significant adverse reactions, changes in hemodynamic function, or the development of abnormal clinical laboratory values. Moreover, the cost of intravenous H_2 antagonist therapy with cimetidine q8h is significantly less than that incurred with ranitidine.❑

The data provided in this retrospective analysis of case records indicate that short courses of therapy with intravenous cimetidine provide safe and effective treatment for the prevention of gastrointestinal bleeding.

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YOUR HIDDEN ASSETS

Continued from page 8

meeting area for delegates and counsellors. This meeting requires elaborate preparation. Publication of *Transactions* is also a function of Mr. Wyatt's department.

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Decisions That Pay Off

Virginia A. Borgeson and Pat Smith, I.C. System, Inc.

Some Medical Association of the State of Alabama members may just be writing off bad debts. Others may be doing in-house collections. Still others use collection agencies. Here are some things to keep in mind when you're considering what to do about your past due accounts. Your choices can affect your payoff.

If you're writing off even a small amount each year, you're working harder than necessary. Trying to replace money written off while simultaneously trying to maintain and increase business is like patting your head and rubbing your stomach at the same time! A business which operates at a ten percent profit margin and writes off $2,000 in a given year would have to generate $20,000 in brand new, additional business just to stay even!

Successful businesses which do in-house collections realize that there comes a time when continued efforts to collect are counter-productive. Office personnel assigned collection duties generally have other primary responsibilities. The key to smart accounts receivable management is to realize that pursuing past due accounts after two to three months is more costly than effective.

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AMERICAN MEDICAL ASSOCIATION

Interactions
A Medical Staff Leadership Program

November 29, 1990
The Peabody Orlando
Orlando, Florida

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Leadership Objectives
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- Enhance the understanding of medical staff leadership conflicts inherent in today's healthcare scene.
- Increase ability to interact effectively with medical staff peers and hospital/governing body leadership.

Location and Date
The AMA Medical Staff Leadership Program will be conducted on Thursday, November 29, 1990, at the Peabody Orlando Hotel, in Orlando, Florida. For ease of accommodations and travel, the AMA offers the program one day prior to the 1990 Hospital Medical Staff Section Interim Meeting, and three days prior to the 1990 AMA Interim Meeting.

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AMA-ERF, the American Medical Association Education and Research Foundation, was organized in 1951 by the American Medical Association to raise funds for excellence in medical education. It is dedicated to ensuring that medical schools and medical students receive funds to supplement the cost of education and training. Since its inception more than $51 million dollars has been distributed to medical schools through the foundation.

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•the MEDICAL STUDENT ASSISTANCE FUND, which provides money to medical schools to use in direct financial aid to students.

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VASOTEC®

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema*: Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIDNS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function*: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions*.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension, Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIDNS and DDSAGE AND ADMINISTRATIDN).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension*: In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects*.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions*.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486

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VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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Alabama Medicine

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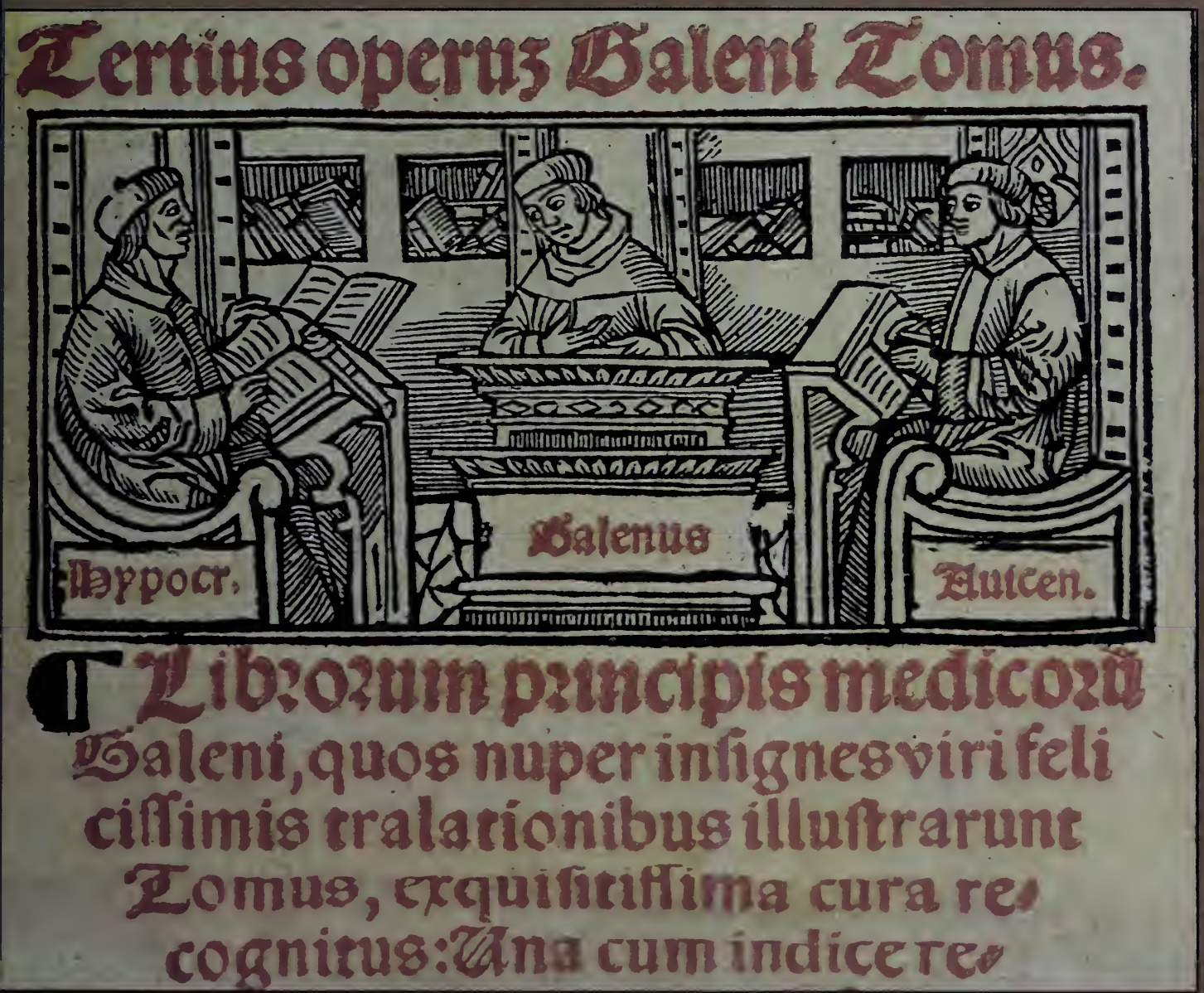

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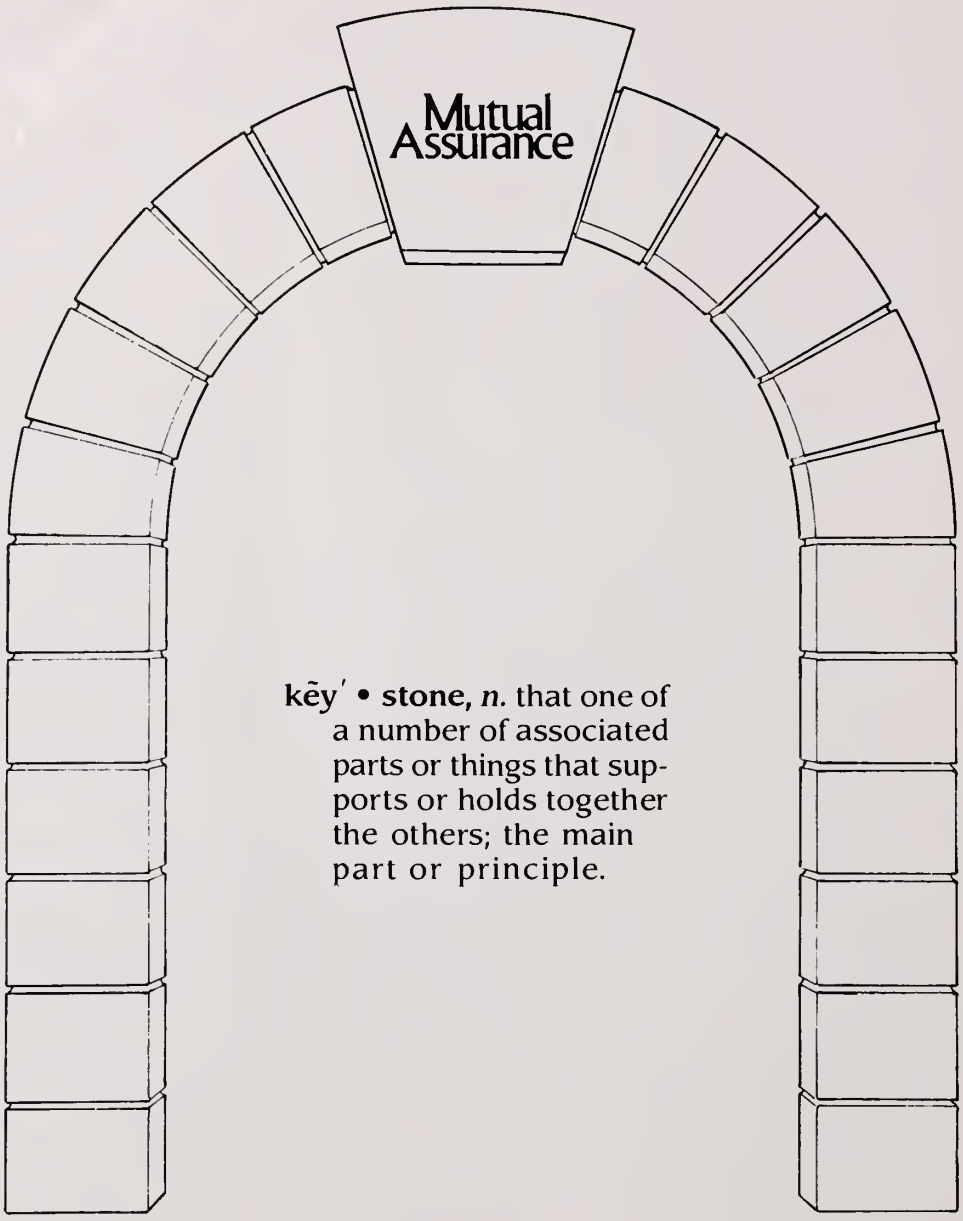

kēy′ • stone, *n.* that one of a number of associated parts or things that supports or holds together the others; the main part or principle.

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In This Issue

Cover: Manuscript illustration showing Galen flanked by Hippocrates and Avicenna, from a 1528 edition of the works of Galen published in Lyons. Note that Galen looks back to Hippocrates as his authority; Avicenna looks to Galen. National Library of Medicine, Bethesda.

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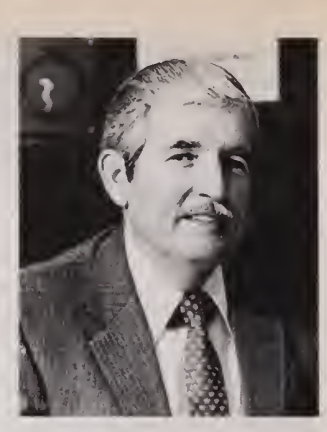


S. Lon Conner
Executive Director, MASA

More Smoke, More Mirrors

There is unpleasant irony for physicians in the fact that the hit they took in the federal budget compromise can be attributed in large measure to the most conservative wing of the Republican Party.

For it was this group that denied President Bush the first budget bill, hammered out in the summit conference between the President and Congressional leaders. Had that bill prevailed, Medicare beneficiaries would have carried more of the load. In the final version, fearing a Gray Panther backlash, Congress and the Administration compromised, shifting most of that burden to providers, chiefly doctors and hospitals.

Even so, as AMA Executive Vice President James S. Todd, M.D., said wearily after the battle:

"This did not turn out anywhere near as badly as it might have.

"All things considered, given the situation in Washington, the budget process and the mentality of some of the people we have to deal with, the medical profession came out as well as could be expected."

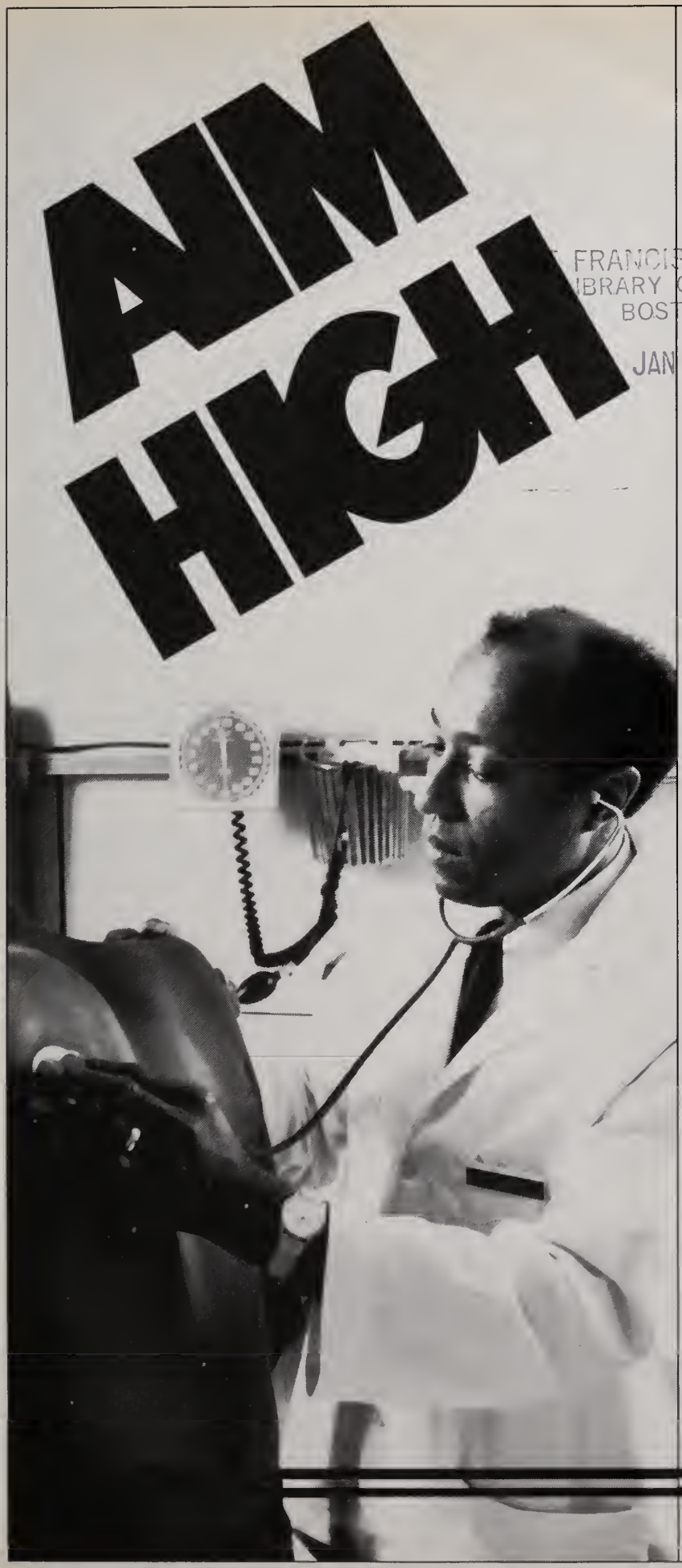
The AMA did, however, add that asking doctors and hospitals to assume the lion's share of the domestic cuts may return to haunt such as the AARP. Access is almost certain to be affected, to be seen in physicians limiting their Medicare caseload—and in far more stringent controls on hospital admissions and stays. For some years, Congress could at least claim to have been cutting the fat in Medicare, but now muscle and bone are chopped away with reckless disregard of the consequences.

And yet how can the President and Congress be blamed for it all when their options were so limited? The American people have made it abundantly clear that they see no rational connection between satisfying their expectations of government and in paying the bill. One columnist quoted a Washington cab driver who expounded at some length on all the goodies Congress could provide if only it were sufficiently enlightened. When the passenger inquired as to how all the cabbie's wants would be paid for, his answer symbolized the attitude of far too many Americans: "Let the government pay for it." He said that with all the passion of a man who had just discovered the free lunch to end all free lunches.

Despite the deficit, despite the triple-trillion national debt, millions of Americans still think of "the government" as some rich but stingy old miser that has only to cough up a few billion more for this or that special dispensation and all will be well. Public education has been faulted so much in recent years, I am reluctant to join the hue & cry again except to note that our schools seemed to have failed totally in one highly important area—disseminating the simple fact that the government is all of us.

When the government is flat broke, so are we. When the government needs more revenue, we provide it. Contrary to what appears to be the conventional wisdom of the electorate, there is no marvelous money machine in Washington that creates wealth by spontaneous generation. Nor is it possible to provide the tax resources, as some believe, without taxing the great middle class. If the government seized all the assets of the rich, as some seem to favor, it would be no more than a drop in the ocean.

The real wealth of the country, like its debt, is the sum of the wealth of its people, the working men and women of the land. While it may be satisfying to call for soaking the rich, there just aren't enough of them. In the end, whatever Americans want from government they must extract from their own pockets in new taxes. The buck stops there, but this simple calculus seems to have utterly escaped the millions who demand that "government" give us more. Government



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• Prolonged use may result in overgrowth of non-susceptible organisms.
• Positive direct Coombs' tests have been reported during treatment with cephalosporins.
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• Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
• Gastrointestinal (mostly diarrhea): 2.5%
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• As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
• Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
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can't give anything without first taking it; or, as has become the wretched custom in the past decade, borrowing the wherewithal from foreigners.

This popular fiction of government as a very rich uncle owes much to the half-truths and downright deceptions of our political leaders, who had been telling us *ad nauseum* that we could have it all for free. While the current budget is somewhat more honest than its predecessors, the smoke and mirrors are still being used with mind-boggling effect.

After the budget agreement, most Americans stopped worrying about the deficit and about new taxes. That was utterly foolish. Stripped of all the rhetoric and obfuscation, what Congress actually did was pass a budget that does not measure up to the claims that it was the biggest and most honest attempt to meet the national deficit in our history. It was a start but a weak one.

Under Gramm-Rudman-Hollins, the deficit for fiscal 1991 was supposed to have been reduced to $64 billion. Congress and the Administration agreed on a package that predicts a shortfall quadruple that—$254 billion. And no one seriously believes that even this will be met. For one thing, it is based on rosy predictions that had already gone sour before the ink was dry on the bill, because of the gathering recession, which will sharply reduce consumer income and spending, and thus revenues.

Also, and here is the biggest deception of all, not even factored in the budget are the incredible costs of the S&L bailout. Also excluded are the massive costs of the Persian Gulf expeditionary force. When the S&L costs are even conservatively estimated, the budget just passed actually calls for federal spending to *rise* by $109 billion in 1991, a 9% increase. And here was a budget "being sold to the public as a step toward fiscal sanity," one commentator noted dryly in something close to utter consternation.

Contrary to popular belief, facing up to the nation's economic problems hasn't really begun. When the next Congress convenes in January, I fear that the same reluctance to tell the people what a fix they are in will again prevail; and so will the old fall-back demand to solve the problems of fiscal 1992 by slashing Medicare.

As the new year approaches, I am not optimistic that either the Administration or Congress has learned a lesson from the national disaffection of 1990. Neither is likely to level with the public. The same old tactics of bread & circuses will return.

Perhaps the American Medical Association should make it a primary lobbying effort next year to persuade our political leaders to make a clean breast of our economic peril to the American people. That may not sound like a physician agenda, but in the final analysis nothing solid can be achieved in federal health care until Washington tells the American people how really sick their country's economy is. Failing that, appeals to sanity are futile in all matters. ❑

T. Riley Lumpkin, M.D.
President, MASA

Board of Censors

The governing body of your Medical Association of the State of Alabama is placed in the hands of your elected representatives in form and in name of the State Board of Censors. The authority set forth in our Medical Association constitution and bylaws in 1847, revitalized in 1873, was legally constituted by the Alabama Legislature in 1850.

The Board of Censors is composed of 12 members, with one member from each of the seven congressional districts and five members elected from the state at-large.

The President of the Association, the President-elect, and the Immediate Past-President are ex officio members of the Board with the privilege of debate and vote.

Other ex officio members of the Board are without a vote but may debate all issues. They are the Vice-President, the Secretary-Treasurer, the Speaker and the Vice-Speaker of the College of Counsellors and the House of Delegates.

The election of each member of the Board commences with the nomination by his/her district caucus at the time of each district's annual caucus, usually in February. These nominees are voted on at the annual business meeting of the Medical Association and take office immediately, with an organizational meeting at the end of the business session in April.

The Board will elect one of its number as chairman for the year at the organizational meeting, usually at the end of the annual session. The Board meets monthly on the third Wednesday of each month at the Association building at 19 South Jackson Street in Montgomery.

The Chairman of the Board appoints the members for the Subcommittee on Association Affairs from the Board members. This subcommittee is chaired by the President of the Association and is composed of the President-elect and the Immediate Past-President, three other members of the board, as well as voting ex officio members, the Vice-President and the Secretary-Treasurer. Executive Director Lon Conner, and General Counsel Wendell Morgan attend as staff support, along with Executive Administrative Assistant Kandy Hudson.

The Subcommittee of Association Affairs handles the day-to-day running of the Association. It reviews reports, budgets, motions, inquiries and any affairs that concern the welfare of the Association. The Subcommittee assembles the information or background material, studies this material and recommends action for the Board of Censors. The Board is the executive body of the Association that determines policy and details of management between sessions of the legislative body.

The Subcommittee of Association Affairs also acts as the recently formed Third Party Grievance Task Force, which meets monthly prior to our regular Subcommittee on Association Affairs. We have met with representatives from Blue Cross Blue Shield, AQAF (Alabama Quality Assurance Foundation), Complete Health, AGMA (Alabama Group Management Association), and others to try and reach some understanding about problems that develop concerning insurance and quality assurance.

Some of you have written to request some clarification and relief on many problems that face each of us on a daily basis in practice. Considerable discussion and understanding take place each month with one or more of the groups. If you have written about a specific problem and this problem has been presented to one of these groups, then you will receive a letter concerning this situation.

The other discussions and solutions are summarized in *The Alabama MD* after the session. We continue to have excellent discussions and cooperative

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References:

1. Data on file, G.D. Searle & Co. **2.** 1988 Joint National Committee. The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

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understandings about the myriad of ongoing problems that are brought to the attention of the Task Force. Some of these problems have quick solutions. Many have to be presented several times to arbitrate a reasonable solution. So keep your comments, questions and concerns coming; the Grievance Task Force will continue to represent you the best we can and assist in solving problems.

Once the board of Censors receives the recommendations from the subcommittee, it takes these issues as well as any other issues under consideration. Individual members of the Association may present their views by requesting an audience for presentation at the next regular session of the Board, calendar permitting. The full Board at the monthly session of the Association is responsible for decision-making, not the Subcommittee on Association Affairs.

The Board members elected to represent each of the United States Congressional Districts, by virtue of their office, serve on the State Committee of Public Health. The Board in this capacity meets with the State Health Officer (Dr. Claude Earl Fox) at the State health Department Building, just in front and east of the Capitol on Dexter Avenue. Here the committee members make decisions concerning the Public Health for the citizens of Alabama. This is the second of three hats that the MASA Board of Censors wears in its capacity as the purveyor of good health for the people of Alabama.

Wearing the third hat, the Board of Censors acts in the capacity of the Board of Medical Examiners, which meets in the Robert Parker Building (across Jackson Street, southwest of the MASA Building on the corner of Jackson and Washington streets). Here the evaluation of your licensure application is investigated. With the beginning of the Physician Data Bank, appropriate information concerning a disciplined physician, as defined by federal law, is reported. Every effort is made to insure fairness and accuracy in all reports referred to the National Practitioners Data Bank.

The Board of Medical Examiners (BME) also checks on complaints from patients who write about a physician's conduct towards them. Any excessive prescribing of controlled medications is investigated by the BME investigators. Physicians who have such problems are monitored by the BME investigators on a regular basis. Any physician who has chemical dependency impairment is referred to the impaired physician program for continuing support, education and rehabilitation. The BME also provides the Alabama Controlled Substance license that, along with the Drug Enforcement Agency (DEA), gives the physician the privilege of dispensing controlled substances while holding a valid license.

So, this gives you a brief inside look at the many duties of your Board as it works to provide support, protection, good health, good working conditions and education for the physicians and citizens of Alabama. ❑

Mechanism and Treatment of Nausea and Vomiting

*T. Nagendran, M.D.**

*S. Nagendran, M.D.**

There are several mechanisms by which animals may protect their bodies and most importantly their vital organs like the brain from damage by ingested toxins. These mechanisms include a) smell and taste of potential toxins and thus avoiding them; b) detection of toxins by receptors in the gut leading to 1) nausea, thus preventing further consumption; 2) confinement of toxins to stomach by inhibition of gastric motility; and 3) purging the toxins from stomach by vomiting; and c) sensing the absorbed circulating toxins and inducing vomiting centrally. These protective reflexes are analogous to sneezing and coughing of the respiratory systems. This article describes briefly the mechanisms and management of nausea and vomiting induced by common conditions.

The protective reflexes of the body to purge toxins are analagous to sneezing and coughing of the respiratory system.

The following is an incomplete list of causes of nausea and vomiting: a) gastro intestinal causes; b) toxic states resulting from bacterial and viral infections; c) extreme pain; d) metabolic disorders like uremia, diabetic ketocidosis, hyperkalemia and Addison's disease; e) neurological causes; f) pregnancy; g) radiation sickness; h) motion sickness; i) poisons and drug toxicity (digitalis); and j) circulatory collapse.

The act of vomiting occurs in three stages: In the first stage, the stomach becomes atonic and the duodenal tonicity increases. The duodenal contents may reflux into the stomach and the patient feels nauseous.

The second stage, the stage of reteling includes increased intra abdominal pressure from descent of diaphragm and contraction of extraabdominal musculature and spasmodic contraction of the glottis.

The third stage, the stage of vomiting, includes the straightening of the gastroesophageal junction, relaxation of the lower exophageal sphincter and the forceful expulsion of gastric contents into esophagus and mouth.

Autonomic nervous system is not involved in the act of vomiting but is associated with symptoms like sweating, pallor, excessive salivation, tachycardia and hypotension.

Figure 1 and 2 describe the afferent and efferent pathways.

The management of nausea and vomiting includes a) finding the primary cause of nausea and vomiting, b) use of antiemetics when primary condition leading to nausea and vomiting is not amenable to specific therapies and when nausea and vomiting occur as a result of a therapy, and c) prevention of complications of vomiting.

The complications of nausea and vomiting are well known and they are a) aspiration and aspiration pneumonia, b) hypokalemic hypochloremic

VA Hospital, Montgomery.

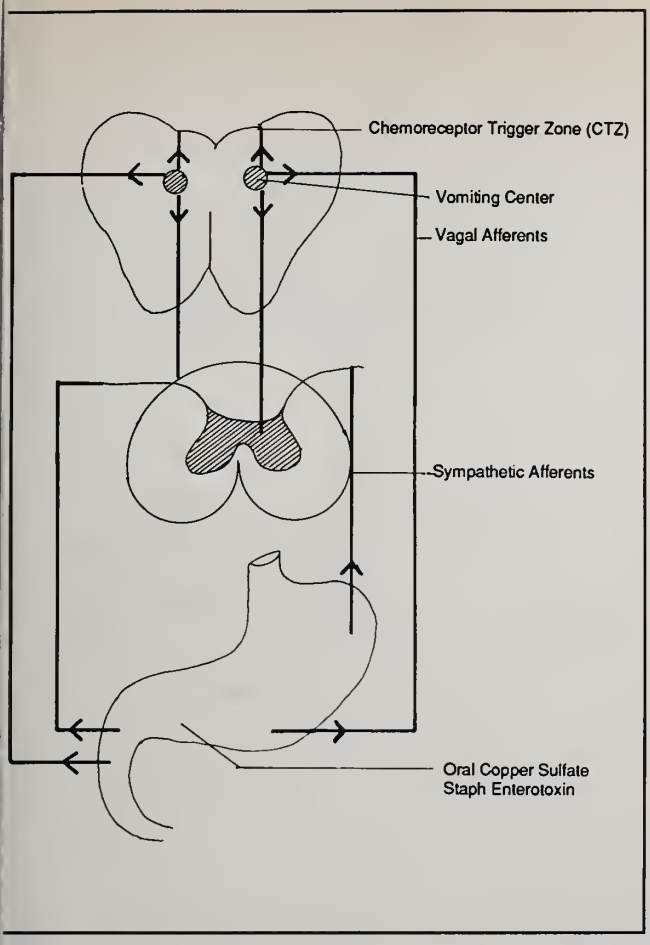

Figure 1

metabolic alkalosis and dehydration, and c) malnutrition

The various antiemetics available at this time are: a) Phenothiazines, b) antihistamines, c) other agents like phenothiazines in action, Haldol, Droperidol Metaclopramide and Tigan, d) corticosteroids, e) anticholinergic, and f) phosphorylated carbohydrates. In general, antiemetics are more effective for prophylaxis than for treatment.

NAUSEA AND VOMITING CAUSED BY CANCER CHEMOTHERAPY: The nausea and vomiting are the most commonly seen subjective side effects of cancer chemotherapy. Thus the body is able to recognize toxins, a great evolutionary value that is a distinct disadvantage in modern day cancer treatment.

The cancer chemotherapy induced vomiting is believed to act via the CHEMORECEPTOR TRIGGER ZONE (CTZ) in the area of postrema, in the floor of the fourth ventricle. Although all cytotoxic agents produce nausea and vomiting, marked difference exists among these agents in their emetic potency. The drugs which inhibit RNA and protein synthesis are more emetogenic than the agents which interfere with de novo DNA synthesis.

Even though the peak levels of these drugs in plasma occurs in minutes after intravenous injection, the onset of nausea and vomiting is delayed for 1 to 12 hours. The reason for this delayed onset may be the secondary mechanisms relating to rapidly-turning over enzyme systems in the body responsi-

ble for the breakdown of neurotransmitters. In the absence of the enzymes, the neurotransmitters accumulate and stimulate CTZ to induce vomiting. The enzymes involved are peptidase, enkephalinases and arylamidases and the neurotransmitters involved are enkephalins.

Anticipatory nausea and vomiting occurs in certain individuals (after many courses of chemotherapy). even before chemotherapy is administered. The exact cause is not known but is considered to be a conditioned reflex.

Treatment of cancer chemotherapy induced nausea and vomiting is giving adequate doses of antiemetics before chemotherapy is begun and continuing them at least 24 hours or longer. Of all the antiemetics, Damethasone and metoclopramide seem to be the best to both inpatients and outpatients. While phenothiazines are also helpful, antihistamines are not. Alivan may be a potent adjunct to antiemetics, also reduces anxiety and induces lack of recall. Consideration should be given to use Benedryl to prevent extra pyramidal tract side effects when large doses of metoclopramide is used, example- 2 mg. per K.G. intravenously).

Neurological causes of nausea and vomiting include a) migraine, b) raised intracranial pressure, c) low brain stem focal gliomas, d) vestibular disorders, and e) vomiting caused by drug therapy. The association of vomiting with headaches was known to Hippocrates. In classic migraine, nausea and vomiting are the most troublesome abdominal symptoms. Gastric stasis has been shown as the major cause of nausea and vomiting rather than the intense pain.

Increased intra cranial pressure: Projectile vomiting often not preceded by nausea and severe in the morning is a symptom of increased intra cranial pressure. The absence of nausea is related to lack of gastric stasis.

Low brain stem gliomas: Cause severe persistent vomiting with or without nausea. The intra cranial pressure is usually normal.

Vestibular disorders: Vomiting is a common feature of Meniere's disease and vestibular neuronitis.

Drug induced vomiting: All dopamine agonists used to treat Parkinson's disease may cause vomiting.

POSTOPERATIVE NAUSEA AND VOMITING

The incidence of postoperative or post anesthetic nausea and vomiting varies from 1 to 40%, depending upon: a) type of premedication used, b) anesthetic technique and type of operation. Most of the postoperation nausea and vomiting occurs within the first hour after surgery and in some cases it can last up to 24 hours.

In examining preoperative medications, it is found that morphine causes more vomiting than Demoral. The addition of atropine to morphine as preoperative medications reduce the incidence of nausea and vomiting from 60% to 35%. But, when atropine alone is used, the incidence of nausea and vomiting is only 11% . The nausea and vomiting associated with the usage of opiates are secondary to gastric stasis.

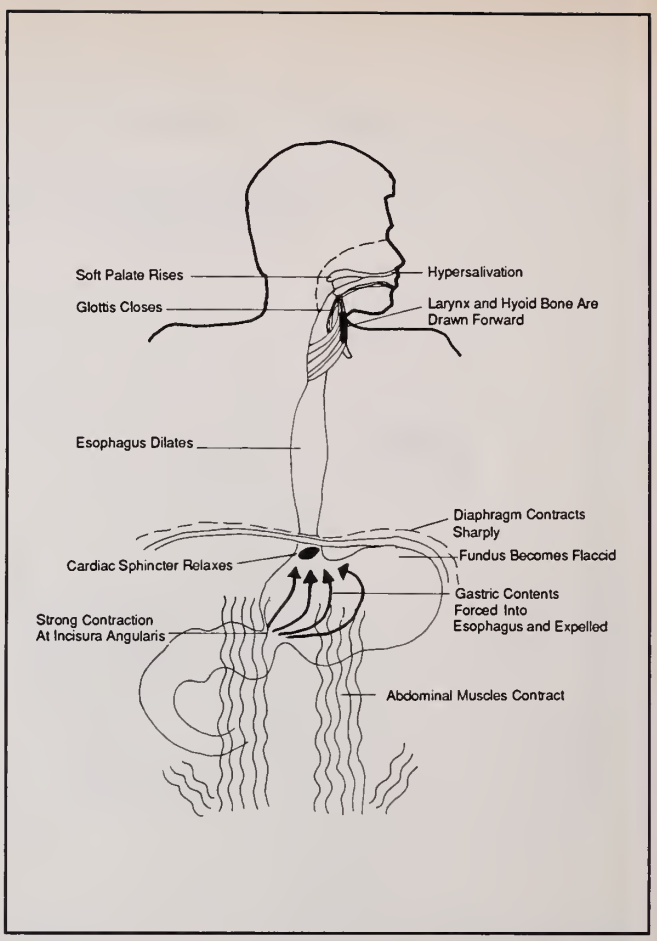

Figure 2

Anesthesia technique: Excessive physical stimulation of oropharynx by inexperienced anesthesia personnel significantly contributes to postoperative nausea and vomiting. While all anesthetics stimulate CTZ and the vomiting center to some extent, other factors like delay in treating hypotension and inadequate control of pain cause more postoperative nausea and vomiting. The delay in treating hypotension alone may increase postoperative vomiting from 10% to 60%.

Patients and type of operations: Children and women vomit more than adult males. Obese patients, patients with a history of motion sickness and patients with a history of previous postoperative vomiting are at high risk for this condition. Abdominal procedures cause more nausea and vomiting than extraabdominal procedures.

Treatment and prevention of postoperative nausea and vomiting:

a) Keep stomach empty for at least 6 hours before anesthesia/surgery

b) In emergency cases, use nasogastric tube to deconpree the stomach and use rapid sequence anesthesia induction (tube awake)

c) Use antiemetics preoperatively, where postoperative vomiting may lead to significant complications like eye surgery and oral surgery where teeth are wired together

d) Avoid blood from getting into stomach, i.e. nose surgery

e) Avoid excessive stimulation of oropharynx

f) Adequate control of postoperative pain

g) Prevention and or early treatment of hypovolemia and hypotension

h) Avoid placing patients next to patients who are already vomiting

i) Avoid long bumpy rides from operating room to recovery room and then to patient's room

j) When patients are just nauseated, encouraging patients to take deep breaths and to stay still without sudden movements may prevent vomiting

k) Phenothiazines and antihistamines are the drugs of choice. Metoclopramide and domeperidone are not helpful in this condition. Anticholinergics like atropine and scopolamine are useful when they are used along with opiates. Haldol and droperidol can induce antiemesis with relatively rapid onset of action but duration of action is short. These two agents may cause hypotension and sedation.

Psychogenic vomiting: Is a rare condition occurring more commonly in young women with a family history of this condition. The vomiting classically occurs without nausea, usually soon after a meal. The management includes primarily to rule out all organic causes of vomiting.

Motion sickness: The human species is not alone in being susceptible to motion sickness. The sequence of symptoms and signs that constitute motion sickness is characteristic: yawning, sighing, lethargy, somnolence, loss of enthusiasm and lack of concern for the talk at hand precede nausea. The skin turns pale due to shunting of blood to muscles. A feeling of warmth and desire for cool air is often accompanied by sweating. As symptoms progress, vomiting becomes increasingly likely. After vomiting, there may be a temporary improvement but if the motion continues, the symptoms recur.

Motion sickness may be sea sickness, car sickness, swing sickness, camel sickness, cinerama sickness or space sickness.

Motion sickness results from excessive stimulation of the vestibular apparatus of the inner ear. The impulses act on both the CTZ and vomiting center. Antihistamines are the drug of choice and scopolamine skin patch applied at least 4 hours before the begin-

ning of travel will effectively prevent motion sickness. Lying down and looking at the vehicle wall will also help to reduce the symptoms of motion sickness.

Radiation induced nausea and vomiting: Vomiting is the most characteristic symptom of radiation sickness and often the first overt sign of radiation toxicity. The severity of radiation induced nausea and vomiting depends on the amount of dosage, dose rate, radiation quality, portion of body being radiated and sensitivity of the patient.

Radiation sickness occurs in three phases: prodromal phase, latent phase and manifest phase. Vomiting occurs in the prodromal phase and manifest phase

Prodromal vomiting occurs usually within a few hours of radiation therapy. The manifest phase of vomiting is usually delayed for several days to a week.

The causes of radiation induced nausea and vomiting include a) increased intercranial pressure, b) stimulation of the TZ, c) sensitivity of epitastic region to radiation, and d) neurotransmitters released as the results of radiation.

Nausea and vomiting in pregnancy: Nausea and vomiting occurs in more than half of all pregnancies but many are mild. Symptoms typically begin shortly after the first missed menstrual period and disappear by the fourth month of pregnancy.

The cause of vomiting in early pregnancy is not known but is believed to be multifactorial including hormonal, neurologic and psychologic factors.

Hyperemesis gravidarum or pernicious vomiting of pregnancy is interactable vomiting of early pregnancy which leads to fluid and electrolytes disturbances and nutritional deficiency.

Hyperemesis gravidarum occurs more commonly in women with hydratiform mole.

The cause of vomiting in early pregnancy is not known but is believed to be multifactorial including hormonal, neurologic and psychologic factors.

While patients with hyperemesis gravidarum need hospitalization, other patients need only reassurance. Small frequent feedings will help. Antihistamines which are not associated with terratogenic potential have been used extensively but the Food and Drug Administration (FDA) has not approved any of these agents for use during pregnancy.

The other surgical/medical conditions producing nausea and vomiting in children and adults like obstruction, perforation, inflammation and bleeding of the gastrointestinal tract are not considered in this paper.

The antiemetic drugs: In general antiemetic drugs are more effective for prophylaxis than for treatment. The antiemetic agents act on a) peripheral receptors of gastrointestinal tract (e.g., vomiting induced by copper sulfate), b) suppressing the vestibular apparatus, c) suppressing the vomiting center, and d) suppressing the CTZ.

Phenothiazines: Are basically apomorphine inhibitors and so they act through suppressing crz. They have been in use longer than other agents and can be administered through the three major routes. They can produce extrapyramidal side effects in young patients.

Butyrophenones: Haldol and droperidol belong to this group and they are more effective in controlling chemotherapy induced nausea and vomiting. Hypotension and sedation are major side effects along with extrapyramidal reactions. They also suppress CTZ.

Coticosteroids: The exact mechanism of action of corticosteroids is not known. The antiemetic effect may be due to prostaglandin synthesis inhibition. They are extremely effective, when they are used in combination with other agents like phenothiazines, butyrophenones and metoclopamide

Metoclopramide: Acts via altering CTZ action and also stimulating gastric motility. The side effects include diarrhea, extrapyramidal symptoms and sedation. Prophylactic use of diphenhydramine or benztropine should be considered to prevent extrapyramidal reactions, when high doses of metoclopramide is used.

Antihistamines: Work best in the motion sickness and other vestibular disturbances. The antihistamines are in general less potent than phenothiazines. ❑

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Permanent Transperineal Iodine – 125 Implantation

*Steven H. Stokes, M.D.**
*Jack D. Real, M.D.**
*Paul W. Adams, M.D.**
*William Kan, M.S.**

Introduction

Carcinoma of the prostate is the second most common malignancy in men accounting for one third of the cancer deaths. Management of operable disease has traditionally been radical prostatectomy. Irradiation is typically utilized for inoperable patients or those who decline the recommended surgery. Irradiation can be administered either externally by the use of a linear accelerator, typically requiring seven weeks of outpatient therapy, or as an alternative by interstitial implantation of radioactive Iodine seeds into the prostatic area. Until recently, interstitial implantation of radioactive seeds required a retropubic approach at the time of open surgical exposure.[1,2] A newer form of implantation employs the use of transrectal ultrasound to precisely implant the seeds through a perineal approach. Early results indicate this technique is equally effective in local control with minimal mobidity.[3] In this article we describe our preliminary experience in the management of early localized carcinoma of the prostate in medically inoperable patients utilizing transperineal ultrasound guided radioactive Iodine 125 seed implantation for cancer of the prostate.

Methods and Material

Patient Criteria

Between October of 1988 and December of 1989, 26 patients underwent transperineal implantation of the prostate with radioactive Iodine 125 seeds using ultrasound and template guidance at Southeast Alabama Medical Center. The number of seeds implanted ranged from 35 to 116 resulting in 16.8 to 47.56 millicuries of radioactive Iodine being implanted. Patients eligible for iodide 125 implantation met the following criteria:

(l) Histologic confirmation of prostatic cancer with well to moderately well differentiated tumor and a Gleason's score of less than 7.

(2) Reasonable life expectancy although due to coexisting medical illness were not felt to be a candidate for radical prostatectomy.

(3) Tumor clinically limited to the prostate (stage A2, Bl or B2)

(4) No evidence of distant metastasis documented by normal bone scan and CT scan of the pelvis.

(5) Normal acid phosphatase and a PSA of less than 50.

Technique of Implantation

The procedure as described by Blasko[3] involves obtaining an initial prostatic ultrasound to determine

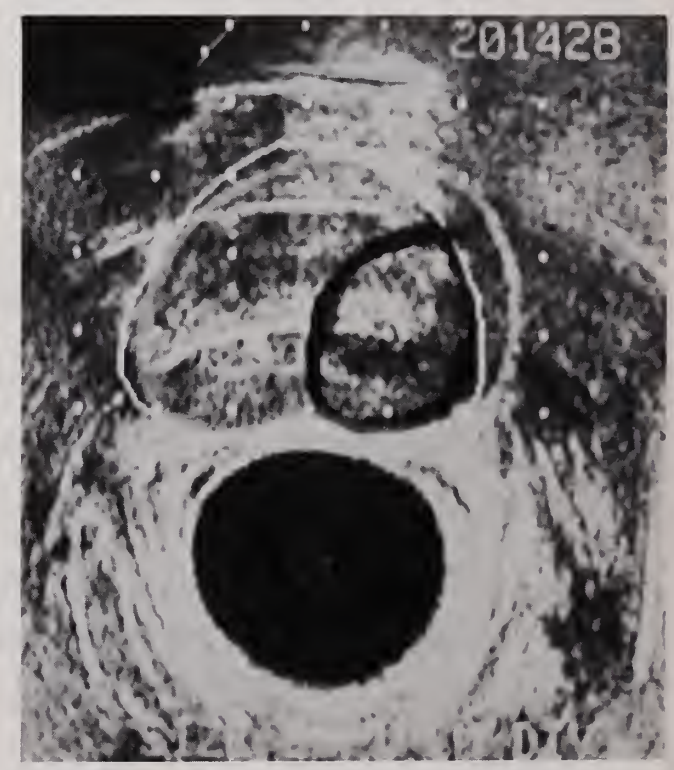

Figure 1: Pre-implant prostate ultrasound. Palpable tumor in left prostatic lobe appears as hypochoic area.

*Department of Radiation Oncology, Southeast Alabama Medical Center, Dothan, Alabama 36302.

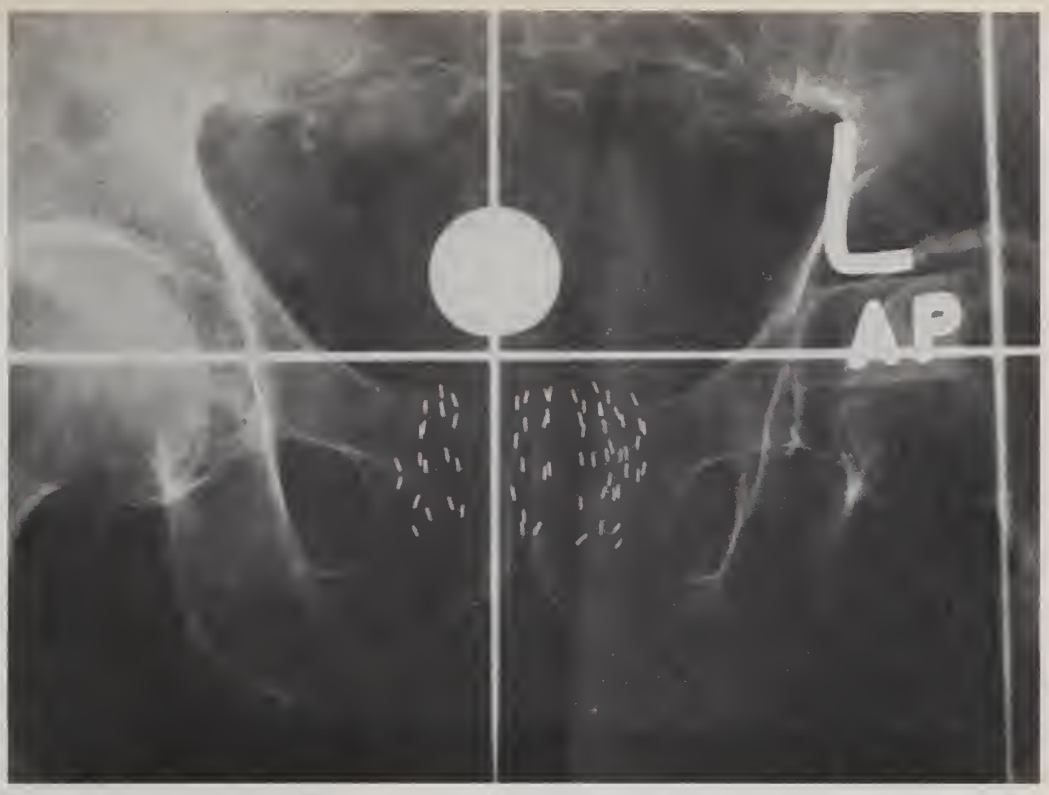

Figure 3: Post implant film documenting radioactive seeds are correctly placed. Note that additional seeds are placed in left prostatic lobe to ensure adequate coverage of tumor.

the volume and which is utilized by the radiation oncologist and physicist in formulating a scheme for the insertion of the radioactive Iodine to deliver 16,000 cGy (rad) minimal prostatic dose (Fig. 1). The patient is admitted the evening prior to the procedure and undergoes cleansing enemas and 2 grams of intravenous Rocephin. The following morning, the patient is transported to the Cystoscopy Suite where spinal anesthesia is induced and the patient is placed in the lithotomy position. The scrotum is prepped, retracted anteriorly and secured to the abdominal wall with towel clips. The transrectal ultrasound is inserted into the rectum and the Bruel and Bjaer (B & R) ultrasound equipment is activated imaging the prostate. The superior margin of the prostate is determined and the template needle guide is positioned to correspond to the original preimplant prostatic volume ultrasound. Two needles are inserted into the posterior-lateral margins of the prostate to stabilize the gland for the subsequent needle insertion. Utilizing the preplanned scheme of insertion, the needles are sequentially inserted to the correct depth as determined by the B & ultrasound. The stilette of the needle is secured and the needle is withdrawn over the stilette depositing the radioactive seeds in a linear array within the prostate (Fig. 2). The procedure typically requires one and one half to two hours. Following insertion of the seeds, cystoscopy is performed and any displaced seeds within the urethra or the bladder removed. A Foley catheter is inserted, the patient is transported to his room for observation overnight. Postoperative films are obtained to verify that the radioactive seeds have been correctly implanted according to the preplanned scheme of insertion (Fig. 3). The following morning the catheter is removed and the patient discharged. Patients may immediately resume their normal activity although they are cautioned to wear a condom during sexual intercourse for

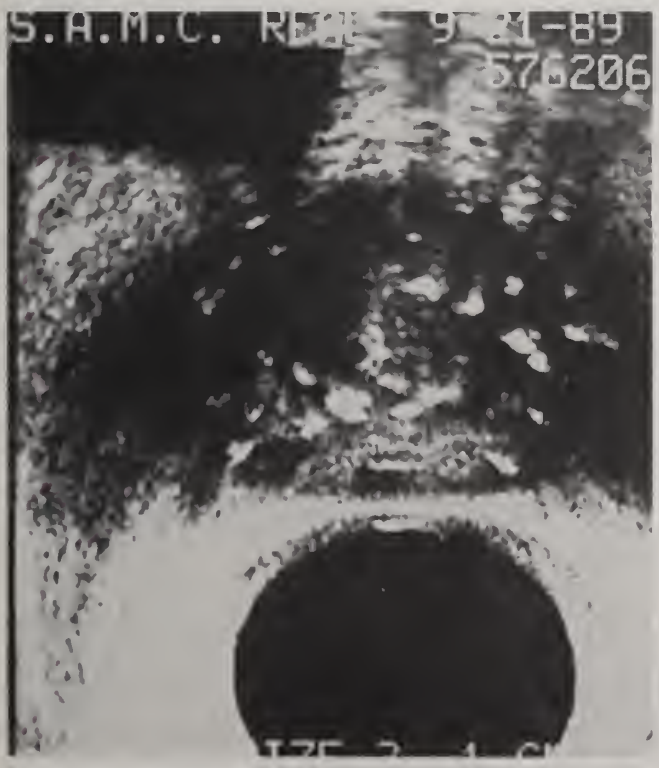

Figure 2: Post-implant ultrasound demonstrating radioactive seeds within the periprostatic area.

two weeks following the procedure in the event of radioactive seed displacement.

Results

Morbidity

The acute morbidity during the treatment has been minimal. One patient required an indwelling catheter for several days following the procedure, however, this was subsequently removed without subsequent morbidity. All patients experience a transient radiation cystitis several weeks following the procedure which is easily managed with antispasmodics and anti-inflammatory medications. One patient has experienced persistent cystitis requiring medication, however, no patient has required readmission for evaluation or management of morbidity related to the procedure.

Local Control

All patients with initial clinically palpable disease have experienced regression of their tumor, however, it is premature to determine the long term local control rate. Serial PSA's have been utilized to follow the activity of the-patient's disease. Thirteen of the patients had elevation of their PSA defined as being greater than 4, (Table I). Twelve patients (75%) have experienced a continued progressive decline of their PSA and in nine the level has normalized. One patient (R.D.) experienced a slight increase in PSA from 4.6 to 5.1 at four months following the implant prompting a follow-up bone scan. This demonstrated the appearance of new asymptomatic bone metastasis. He has commenced Lupron and Flutamide after refusing castration. He remains asymptomatic from his metastasis.

Discussion

Curative surgery remains the standard of care for the management of localized carcinoma of the prostate. However, a substantial number of patients will have coexisting medical illness precluding radical prostatectomy. For this group of patients, transperineal ultrasound guided radioactive Iodine 125 seed implantation appears to be an effective alternative to a prolonged seven week course of external beam irradiation. The procedure is well tolerated with minimal acute and chronic morbidity.

Results at other institutions utilizing the more complex open surgical retropubic approach of seed implantation indicate a 90% likelihood of local control at five years.[1,2] This newer technique by the perineal approach avoids major surgery and appears equally effective.[3] Longer follow-up will be necessary to determine whether our local control will remain excellent and our morbidity minimal but we are encouraged by our initial experience. ❑

TABLE I
Response of Elevated PSA to I-125 Prostatic Implantation

Patient	Pre-Implant	Post-Implant	# Months Post Implant
A.B.	4.7	1.5	8
C.G.	9.2	2.6	6
R.G.	7.6	1.1	12
R.H.	12.6	0.5	12
H.G.	46.4	2.4	11
R.D.	4.6	5.1	4
C.B.	24	12.2	7
E.B.	18.6	5	9
T.T.	25	3.6	4
R.F.	9.1	1.5	3
E.S.	4.2	0.9	6
C.W.	8.1	1.7	4

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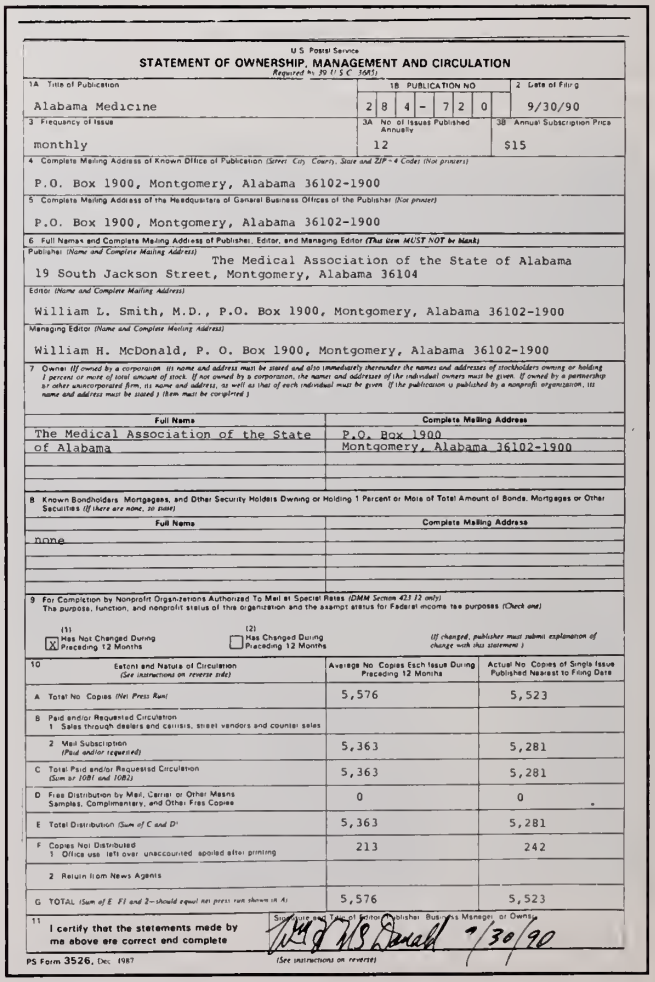

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Letters...

Agamemnon, Call Home

Editor, *Alabama Medicine:*

I very much enjoyed Dr. Claude Brown's synopsis of the story of Agamemnon. The Trojan War and its aftermath are among my favorite stories in classical literature. (I once recited the Orestia to a frightened horse, which not only calmed him but held his rapt attention for some 30 minutes while an injury was being treated. That horse probably knows more classical literature than most college graduates.)

I am not sure what The tale of Agamemnon has to do with quality review in Alabama, but I would like to make a few comments on quality control. Like Dr. Brown, I, too, sit on both sides of the fence. I am a private practitioner on the front lines, but for one morning a week I review charts. I will in no way attempt, nor have I a desire to, defend Government bureaucracy, but when I began reviewing charts I was immediately struck by a number of factors relating to the physician's documentation. When I review a chart, the last thing I look at, and the thing I pay least attention to, is the physician's progress notes. They are usually illegible, extremely brief, often irrelevant, and frankly the least informative part of the chart, even when they can be deciphered. I get far more information looking at nurses' notes, lab work, emergency room sheets, vital signs, radiologic reports, and hopefully I can decipher something from the History and Physical. Indeed, the H&P's and Discharge Summaries are often a disgrace and would receive failing grades from any medical school. When I run across a well-documented History and Physical, I look to see if this was dictated by a physician's assistant or resident – it often is. If, as Dr. Brown correctly states, the medical record is primarily intended to help the physician treat a patient, then many physicians in this state are doing their patients and themselves a great disservice.

In addition, to be blunt, there are quality problems which are frequently seen quite apart from poor documentation. I've seen a number of private physicians who began reviewing charts with some sense of guilt, feeling they were betraying their fellow practitioners, only in short order to have their opinions change completely when they discovered the frequent occurrence of quality problems. I know there are many excuses that can be given for failure to document or to pursue a medical problem adequately, such as lack of facilities, lack of physician time, and of course the intrusion of the review process itself. I'm not going to debate these individually, but instead will simply say that nothing should take precedence over quality care for the patient. Nor should anything be allowed to be an excuse for failing to deliver this care. There are plenty of physicians who document adequately and demonstrate a detective's skill in trying to unravel the patient's problems. It is true that a reviewer of the chart does not have the advantage of being able to actually talk to and examine the patient. I also feel it is true that the physician who is documenting the chart should be able to give as clear an impression as possible so that anyone looking at that chart subsequently should be able to form some realistic impression of the patient.

Don't take my word for it, instead attend any of the malpractice workshops that are held in various cities throughout the State, and listen to what advice is given there. If you are a physician who documents well, then I would continue that practice. A physician, on the other hand, who treats his chart lazily, I would suggest there are enough warning signs that urgently imply that these habits be changed.

Wiley Livingston, M.D.
Bessemer, AL

Julian Howell, Sr., M.D.

Dr. Julian Howell Sr. passed away August 18, and with his passing came a rush of reflections and memories of what this truly great individual meant to me and to this community. I can speak of his character with certainty, as our relationship began over 30 years ago with myself a young doctor fresh out of medical school.

On completing my internship, I had set up practice in Thomasville, Alabama, a community that did not have a hospital. When confronted with an illness that I had difficulty in diagnosing, I would send my patient to the best known diagnostician in the area, Dr. Julian Howell Sr. After one such referral, I received a call from him with an urgent request to come and see him immediately. My initial reaction was apprehensive dismay. "What could I have done to warrant such a summons?"

I entered Dr. Howell's office fully expecting to receive a lecture on medical basics, but instead received another shock. He said, "Don, I've been watching the way you practice medicine, and I want you to practice with me here in Selma." This was quite the highest complement I'd been paid in my young medical career and, after discussing it with my wife, gladly accepted the opportunity. Julian wrote up a contract which simply stated that Julian Howell and Don Overstreet agree to practice medicine together. Thus began my close association with Julian Howell.

I was amazed during my early observations of Julian with his dexterity in dealing with patients. He could,

with the same dexterity, console the dissatisfied, soothe the tense and cheer the worried. It was not a skill learned in medical school, but rather a true generosity of spirit. Julian honestly cared about how each person felt and really listened to them – a rare trait. One thing he did not do was assess someone and pass judgment. Although an uncanny judge of character, he never penalized for flaws. I heard him say many times, "never criticize a person until you have worn his moccasins for three moons."

I always enjoyed hearing Julian talk to people – there wasn't a situation created for which he didn't have a funny story. He would always leave a person chuckling and usually be chuckling himself as he walked away – a true master of the parable.

As a doctor, he did so much for Selma. At a time when he did not have specialists in many areas, he would recognize a need and attend conferences to become informed in the particular area. He kept up religiously with new ideas and technology long before it became a medical-legal requirement. He treated alcoholics in his clinic when the widely accepted practice was commitment to an institution. He offered counseling as well as physical treatment. He often told me, "A diagnosis isn't difficult – just listen to your patient."

I think one of the reasons Julian was such a great doctor and human being was his intense reverence for life. He closely followed the work of Dr. Albert Schweitzer, the missionary and doctor who won the Nobel Peace Prize in 1952. The tranquility that can be gained from Dr. Schweitzer's books was certainly evident in Julian's lifestyle.

Dr. Julian Howell Sr. has passed away, and yet he hasn't. The strength of his courageous man's personality touched and molded not only my life but countless others as well. He was an inspiration in the truest sense of the word – one could not know him and not strive to be a little more optimistic, a little more kind, a little more "broad-minded."

Although we no longer have the gift of his effervescent nature, we still have the legacy Julian had to offer, and I, to speak for one, am grateful.

Donald C. Overstreet, M.D.
Selma, AL ❑

Beat The Odds

Virginia A. Borgeson and Pat Smith
I.C. Systems, Inc.

Consider this: 51 billion dollars in unpaid debt was turned over to collection agencies in the U.S. in 1988. It's anyone's guess as to the amount of unpaid debt that sat on business ledgers and was eventually written off. Although, in a country whose national debt has soared, it may seem to make sense that personal and business debt would follow suit, this is little consolation to business people who want to be paid for the goods and services they supply.

According to the American Collectors Association, collection agencies succeed in collecting about 21% of the debts submitted to them. John Q. Public is generally unaware of this fact. So, what can members of the Medical Association of the State of Alabama expect when using a collection agency? And what can you do to help the agency produce at a level at or above the national mean?

If 21% is the average, then don't be average! If you work as a partner with your collection agency, turning over accounts in a timely manner and making sure you give complete and accurate information, you can significantly beat the odds.

The Medical Association of the State of Alabama's endorsed collection service, I.C. System, tells us that for best results, debts should be submitted for collection when they are no more than 60-90 days past due. I.C.'s professional collectors also emphasize the importance of providing complete supporting information such as full address with zip code and working telephone numbers.

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It is possible to beat the odds: Since signing up with I.C. System, MASA members in Anniston, Montgomery and Roanoke have each enjoyed healthy additions to their bottom lines in excess of $15,000. The point is, for every person whose collection agency recovers under the 21% national average, there's a person enjoying a return of more than 21%. In fact, businesses which turn over debts during the first six months of delinquency consistently enjoy better results. That's beating the odds! And it's being done by doctors right here in Alabama.

Although the folks at I.C. System recognize that no collection agency is best for everyone, every place, all the time, they provided a valuable service for more than 237 MASA members in the past year. If you're not using I.C. System, or are ready for a change, call the Medical Association of the State of Alabama office at 205/263-6441 and we'll have an I.C. representative contact you. Beat the odds...the system works. ❑

Mrs. Charles Patterson
A-MASA, President

Make A Difference

The following article appeared in the Southeast Alabama Health Journal and Directory. It is a moving description of an ongoing project undertaken by the Houston County Medical Auxiliary. This project is one of the many excellent examples of the hard work our Alabama auxiliaries perform every year to MAKE A DIFFERENCE in communities across our state.

In May, I had the opportunity to Visit the Houston County Auxiliary, enjoy their Kitchen Tour, and view this very special facility. Mary Julia Lee, Past A-MASA President, and her husband, Dr. Rufus Lee, guided me through the facility, sharing special stories of how this home became a reality. Listening to stories of appliances, furniture, linens, other household items, and even evening dresses for school pageants coming together at just the right time reminded me that miracles do happen.

This home, like our own, demands constant upkeep. and in time will require updating and replacement of equipment. The dedication of the entire medical community in Houston County and the high level of support and commitment of organizations in the Wiregrass area will insure that this home is able to continue to provide hope for abandoned and abused girls.

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The auxiliary, whose main objective is to advance the cause of preventative medicine, pledged to make a difference in the lives of these desperate girls. This *was not* volunteering to give an hour a week to take a disadvantaged girl shopping – this *was* pledging to build and staff a home where these girls could be properly nurtured in every way until they grew to womanhood and went out into the world capable of caring for themselves.

How was the auxiliary to accomplish this idealistic dream? The financial resources required would be so great that other organizations, corporations, and individuals would have to be marshalled in the effort if it was to become a reality. Along with fund raising, educating the community as to the need was a top priority. The entire Wiregrass area came to the forefront in support of the project. The Zonta Club of Dothan adopted Chrysalis as their project. Civic organizations such as Rotary, Kiwanis, Civitans, Service League, High School Key Clubs, churches, and others have been supportive both monetarily and emotionally.

In 1986 this home was just a vision. In August of 1988 it became a reality when caring houseparents and the Chrysalis girls started moving into their new home. These girls, who were once victims, are now full of hope. They are planning their futures with the loving support of houseparents who devote themselves to teaching the girls how to become mature, responsible young ladies.

Of course, the commitment never ends. There is a constant need for financial support. In supporting Chrysalis, individuals and corporations alike take part in rebuilding lives shattered by neglect and abuse.

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Additionally, MASA offers these services to members: • Magazine subscriptions, at low rates, for use in your office • Gold MasterCard Program, with a credit line of $15,000 • Collection agency service with payments directly from the patient • Group travel opportunities.

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MASA

A LOOK AT YOUR ASSOCIATIO

For more than 116 years, the Medical Association of the State of Alabama has served the physicians of this state in the legislative, educational and public arenas. A professional staff of 9, backed by 14 support personnel, works to enhance the image of medicine, to represent the interests of physicians in the legislature, and to assist members in a variety of meaningful and beneficial ways. Here is a partial listing of some of the programs and services of your association:

MASA Third Party Grievance Task Force – works with third parties, such as Blue Cross & Blue Shield and AQAF, to resolve problems commonly experienced by physicians. In less than a year the Task Force has achieved substantial resolution of problems, examples including the nursing home Recoupment demand and the serving physician edict.

Alabama Medicine – the monthly medical science and technology magazine of the association.

The Alabama MD – MASA's weekly newsletter, with an emphasis on medical socio-economic issues impacting medicine in Alabama and in the nation. At last count, no other state association had a weekly newsletter.

Continuing Medical Education – MASA offers a dozen workshops around the state each year, and acts as the accreditation agency for several other CME programs. AMA has repeatedly referred to MASA's program as among the nation's best.

Lobbying and Political Action – MASA represents you, and the issues you hold dear, in both the state and national legislative forums; our lobbyists monitor all legislation affe medicine. The Association has ready acc both state legislators and our congressional gation.

Legal Department – Reviews legisl and provides timely medical-legal information at seminars and through MASA publications. Provides guidance for physicians, office staff, the Board of Censors and the Board of Medial Examiners.

Annual Washington, D.C. Visit – MASA members meet with the Alabama Congressional delegation to discuss issues face-to-face in an atmosphere of informal give-and-take.

Practice Management Workshops – Offering the latest information on CPT coding, with drive-in seminars to tune-up your office staff.

Public Relations/Media Liaison – MASA maintains a close working relationship with the state's news media, telling medicine's story to the people of Alabama.

Image Enhancement of Physicians – MASA produces TV public service announcements, billboards, patient attitude surveys for your office, and informational posters and flyers to effect a positive public perception of physicians.

Physician Placement Register – published every other month, it can help you find a practice opportunity or sell your present practice.

MASA Report Video Newsletter – a quarterly look at Medical Association action and issues facing Alabama Physicians, produced in MASA's own TV facility and available for members and county societies.

Continued inside back cover

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Alabama Medicine

JOURNAL OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Guidelines for Life

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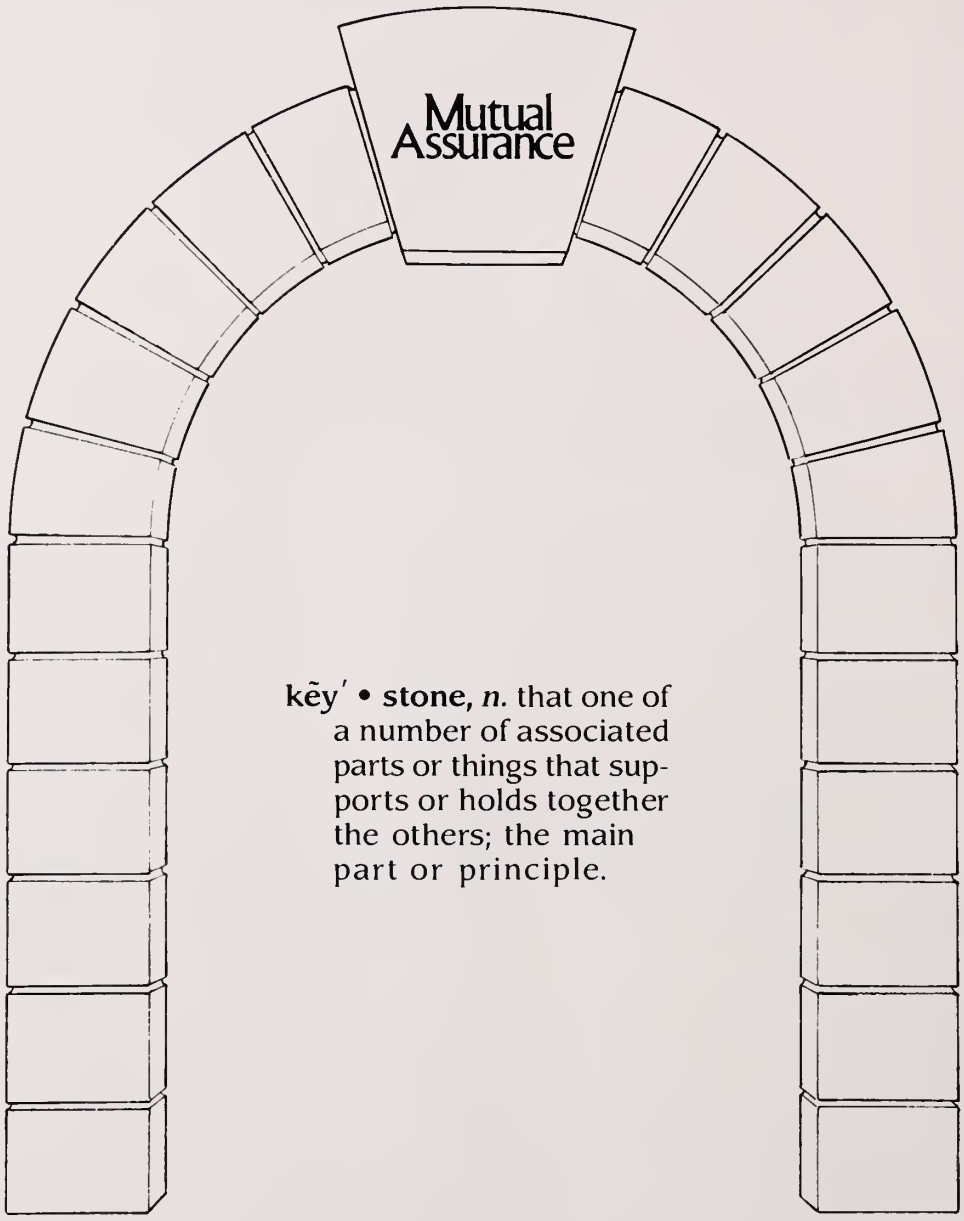
The Keystone of Your Protection



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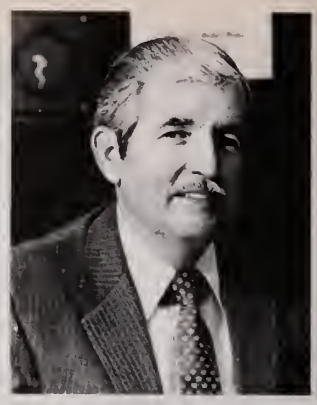
EXECUTIVE DIRECTOR



S. Lon Conner
Executive Director, MASA

Pricing Under Socialism

In the dwindling weeks of 1990, economists began to note an unexpected development — a spreading decline in prices, the first since the late 1940s, when wartime shortages had been finally satiated, with a consequent drop in pent-up demand generated during the war years.

The current deflation, and the economists are already calling it that, began in real estate but has spread to consumer products such as cars, furniture and kitchen appliances.

In most cases, the price deflations have been masked as rebates, sales, and deep discounts. While the sticker price on many automobiles was increased for the 1991 model year, an automobile company economist found that industry-wide rebates averaged $952 in November, more than offsetting price increases. In short, the price of automobiles was actually falling.

This trend, if it is a trend, contradicts the earlier expectation of a period of "stagflation," a stagnant recession economy accompanied by rising prices. Overlooked in that expectation, some economists are now saying, was the "Fisher cycle," named after Irving Fisher and his 1933 article, a classic in economics, that argued that price deflation inevitably follows huge debt.

The $3.3 trillion federal debt is exacerbated by the crushing debt of major portions of the private sector, corporations and individuals, itself the result of a decade of over-borrowing to fuel unrealistic growth, mergers and acquisitions.

That happened in the Great Depression. While the U.S. economy today is far stronger and more resilient, there are those who share the sentiments of economist Ben Bernanke of Princeton: "This is different from the experience of the Great Depression, but something related to the 1930s is beginning to happen."

Health care is being cited as an exception to deflationary trends, but it may well be only delayed, in the same way that automobile prices did not immediately fall with the decline in real restate.

In fact, the federal government's arbitrary price reductions in health care may be considered as a central planning surrogate for the market forces driving down other prices. *American Medical News* for Dec. 21 reported that disillusionment is spreading among primary care physicians who had expected to become beneficiaries of the long-awaited RBRVS.

At a Dec. 5 hearing of the Physician Payment Review Commission (PPRC), physician witnesses expressed widespread disenchantment with the approach of RBRVS because of the "exotic rationales" to cut Medicare payments. Even worse, witnesses said, is the Administration's proposal to cut *all* Medicare payments on the expectation that some physicians will increase services to curtail losses under the new system, or to capitalize on the increases by intensifying higher-paying services.

This is called the "behavioral offset," built-in cuts to account for expected intensification of services, the underlying assumption being that physicians are greedy and criminally inclined.

When all the budgetary cuts, present and to come, are factored in with those aimed at "overpriced" procedures and "behavioral offset," RBRVS may be eviscerated to the point of sham. Former AMA President Alan Nelson, M.D., told the PPRC that the promised increases would be "reduced or wiped out."

Although the federal government denies it, the net effect of present and proposed cutting is simply a massive job of price cutting, leading to what ASIM Executive Vice President Joseph Boyle, M.D., described as a "palpable and growing sense of disillusionment among practicing internists, many of whom don't trust the government to live up to its end of the bargain."

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the services will be lower in 1991 than in 1990. This is simply price-cutting, by a variety of gimmicks, call it what they will.

Thus the specter of central planning, long feared as the thin entering wedge of socialism, is no longer some distant peril. It is here. While Washington turns a deaf ear to physician complaints that the ultimate victim will be the Medicare patient, it would be instructive if bureaucrats and politicians alike looked at some of the reasons socialistic state planning has failed all over the globe.

Economic historian Robert Heilbroner, author of many books on economics, including the deservedly famous work, *The Worldly Philosophers*, has taken a look at the worldwide "massive collapse of the framework of centrally planned socialism."

Capitalism, which the leftist economists had marked for certain doom, triumphed in this century just as socialism, thought by all too many as the wave of the future, failed utterly, Professor Heilbroner writes in *Harper's*. Capitalism has its faults and weaknesses, he says, but "no major system-threatening crisis." Slow growth is one of them, he says, but that usually comes and goes with market forces.

One of the reasons that socialism collapsed all over the planet, Professor Heilbroner writes, is that it provided no means of establishing a rational pricing system:

"The planning authorities mispriced goods not just because they lacked adequate economic information about demand, but because 'efficient' pricing would have created unendurable political tensions."

In other words, the various dictatorial governments kept prices artificially suppressed on the absolute necessities (simple food and basic clothing) while maintaining high prices on goods and services they wanted to ration (housing, automobiles) to keep the people just below the level of insurrection. The string eventually played out, as we have seen, and the whole house of cards collapsed.

An even more fundamental flaw of the socialist god that failed, Prof. Heilbroner says, was the calculated subordination of the individual to the social structure. In the end, the innate craving for freedom of each individual broke the chains.

"I believe the crucial element is human nature, a view I can abbreviate by saying that it recognizes that behavior, like the heart, has its reasons that reason knows not . . . The radical orientation toward change, progress, perfectibility, social salvation . . . must be joined with conservative reservations about those very possibilities. . . ."

Applied to federal efforts to dictate what medical services will be given to whom and at what price, this tells me that the social engineers who believe they can suppress the individual, whether physician or patient, are in for the same rude shock as the failed social planners of Eastern Europe. To believe otherwise is to believe that Americans, doctors and patients alike, are less individualistic than the people of the former socialist states.

I am reminded once again that during the long debate over the mechanisms for determining relative value of services, hundreds of doctors and scores of experts were consulted, but not one consumer.

It bothers me that in the land of the free we seem suddenly to have concluded that price and value are determinations that can be made by economists and other social engineers completely apart from consumer opinion of value, which translates into demand.

That has already been tried, in an experiment lasting half a century, with millions of people and infinite attempts to make it work.

It failed. And failed because the individual cannot be forever manipulated by a government that says it knows best.

Dr. Holwick outside of hospital where she practices as a civilian traumatologist.

Dr. Holwick in operating room at Letterman Army Medical Center

JANN L. HOLWICK, M.D.

General and Trauma Surgeon.
Captain, U.S. Army Reserve.

EDUCATION University of Southern California, B.S.; University of California School of Medicine.

RESIDENCY Harbor General Hospital—UCLA Medical Center.

HOSPITAL AFFILIATIONS St. Luke Hospital; Huntington Memorial Hospital, Pasadena, California; Traumatologist, Arcadia Methodist Hospital, Arcadia, California.

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"I spent six months looking into the Army Reserve program before I joined, wanting to make sure that my skill and time would be put to good use. I've been a Reservist three years now, and I still find it extremely rewarding. I have the satisfaction of knowing that I'm serving my country."

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• Positive direct Coombs' tests have been reported during treatment with cephalosporins.
• Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
• Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
• Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
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• Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
• Gastrointestinal (mostly diarrhea): 2.5%
• Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
• As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
• Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
• Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

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PRESIDENT'S PAGE

T. Riley Lumpkin, M.D.
President, MASA

Potpourri or Guidelines for Life

For years I have collected a variety of rules for living a good life, for peace, for more secure and fruitful life, a better life through exercise and even bits of wisdom. These words, phrases and rules have been very helpful in giving me a boost at the times when I was in the dumps or provided a guiding light when things seem the darkest. So I thought that during this time of year when we all are most generous, when we focus back to our families and our roots, when we are more sensitive to the needs of others, that this would be a good time to bring this message of hope, security and love. Although these events and phrases cannot match the power and wisdom of the Greatest Physician of all times, I hope they will be of some use in your everyday life.

I cannot remember where this welcome of the new year came from but I think it will start you off to a joyous year so thanks to the writer of this bit of wisdom:

"May the New Year bring for you: *Peace* to put the hectic day to rest; *Faith* that leaves no room for blind despair; *Hurt* sufficient for the heart to grow; *Joy* of small things, daily common ones; *Dreams* that burst from vague tomorrows into now; and *Love* enough to fill the empty corners of the Heart."

Remember Proverbs 18:21, "Death and Life are in the Power of the Tongue."

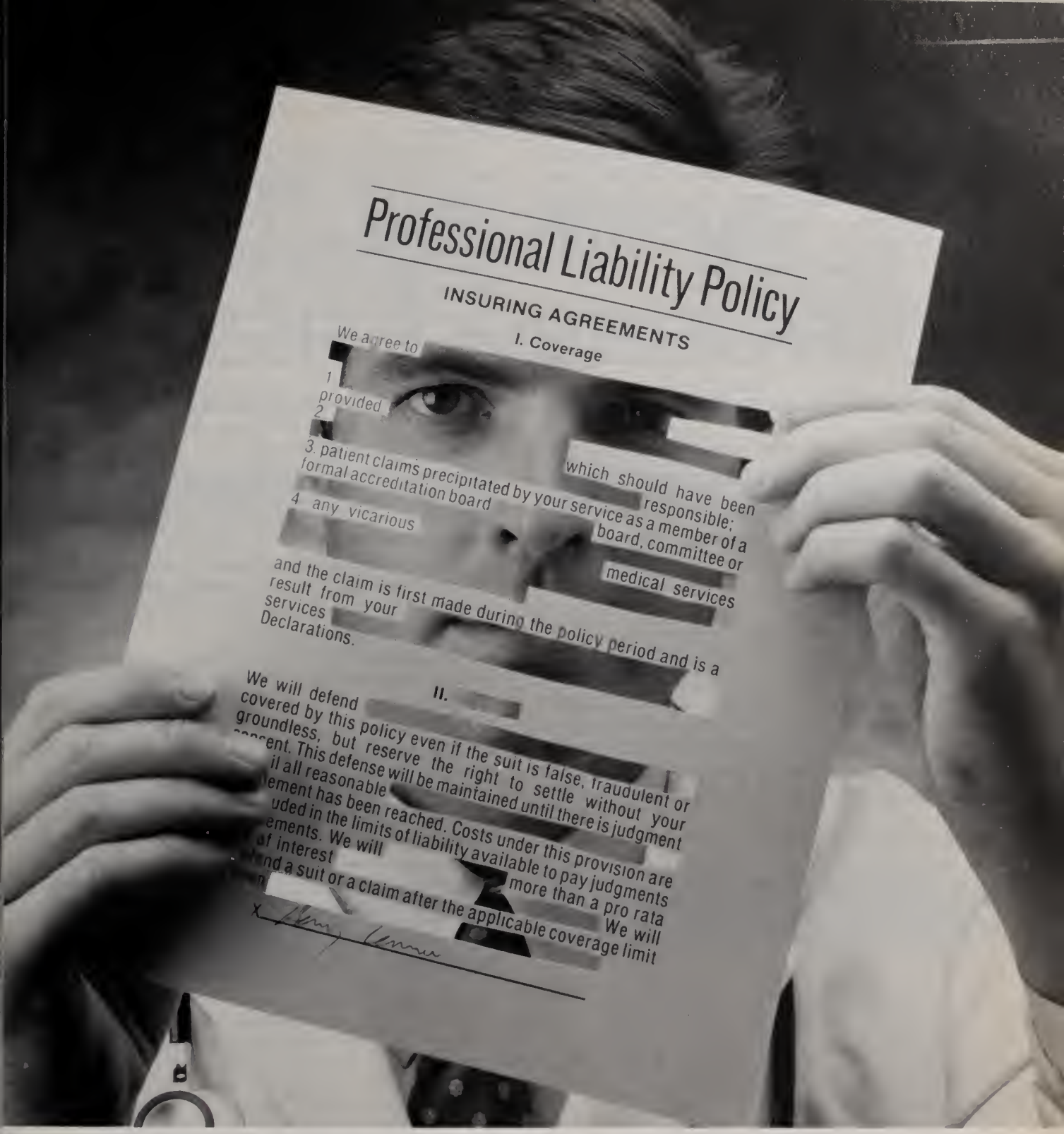
Use these rules to bring your good life of health in line. However, you may have a few you want to add to these:

1. Wear seat belts at all times; remember that most accidents occur within 25 miles of home.
2. Develop a sensible diet from all the thousands of diets available. Make it simple, of regular foods you are accustomed to eating and do not make it impossible. You won't follow it. Start slowly.
3. Exercise regularly with the type of exercise that fits you. Be cautious and not over-exercise. Listen to your body, its needs and demands. Remember exercise, like dieting, takes time to do properly and to get yourself back in good condition.
4. Don't smoke, chew or dip. These cause America's most preventable diseases, habits that cause preventable deaths.
5. If you drink, don't drive. Drinking and Driving never mix. Over 50,000 people die each year in traffic accidents and one half of these deaths are alcohol-related. If you must drink, drink in moderation.
6. Avoid use of any street drugs, cocaine, marijuana, crack, uppers, downers or any of the other hard drugs such as heroin.
7. Get regular check-ups with regular blood pressure checks. Most of us are great at putting out good advice but fail to follow our own recommendations. So make it a regular habit; it pays off for you, your family and your patients.
8. Seek peace of mind. Read, relax, find adventure and learn to enjoy your neighbors, your office staff and all people you meet.
9. Get a good night's sleep. Rest is extremely important each day of your life. Organize your time, your work and your effort.

The words of Stella Cornelius, Australia's Director of the Secretariat for the International Year of Peace, gives us a way to live with conflict: "My Peace is not the absence of conflict. Conflict is the very staff of life, the opportunity for the celebration of our diversity, the natural result of our differing needs. Learning how to weigh, balance, juggle these needs, designing equitable solutions without violence, without rancor, without hostile rhetoric is an indispensable skill for living in the Now."

General Robert E. Lee said that the word duty is the most sublime word in the English language.

And from an even more distant past (over 4500 years ago) we see the words written originally in Sansknt, probably the most inspiring thoughts the world has ever produced, that still to this day give us philosophical guidance to an ideal and highly successful life: "Look well to this one day, for it and it alone is life. In the brief course of this one day lie all the varieties and realities of your existence; the pride of growth, the glory of action, the splendor of beauty. Yesterday is only a



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dream and tomorrow is but a vision. Yet, each today, well lived, makes every yesterday a dream of happiness and each tomorrow a vision of hope. Look well, therefore, to this one day, for it and it alone is life."

From Gordon Dean, former Chairman of the Atomic Energy Commission, we have a set of eight rules that he has used to guide him through the year as his own personal philosophy. I think they are very helpful and hope you can use them and that they mean as much to you as they have to me.

1. Never lose your capacity for enthusiasm.
2. Never lose your capacity for indignation.
3. Never judge people; don't "type" them too quickly. But, in a pinch, always assume first that man is good and that at worse he is in the gray area between good and bad.
4. If you can't be generous when it's hard, you won't be when it's easy.
5. The greatest builder of confidence is the ability to do something, almost anything, well.
6. When that confidence comes, then strive for humility; you aren't as good as all that.
7. The way to become truly useful is to seek the best that other brains have to offer. Use them to supplement your own, and give credit to them when they have helped. And —
8. The greatest tragedies in the world and in personal events stem from misunderstandings. So Communicate!

Have you ever put down your own personal philosophy, the rules by which you use to guide you every day? Give it some thought since a sound philosophy tends to give meaning and substance to our lives. This would mean you could be depended upon by those who love us and those who work with us.

Junius states it like this, "The integrity of men is to be measured by their conduct, not by their professions." What a man does tells us what he is.

Good advice from several years back by Dr. William S. Hendrie, labeled "Just For Today," has been a helpful guide to me over the years. Try this for some help and guidance.

Just for Today: I will try to live through this day only, and not tackle my whole life's problems at once. I can do something for 12 hours that would appall me if I felt I had to keep it up for a lifetime.

Just for Today: I will be happy. This assumes to be true what Abraham Lincoln said, that "Most folks are as happy as they make up their minds to be."

Just for Today: I will try to strengthen my mind. I will study. I will learn something useful. I will not be a mental loafer. I will read something that requires effort, thought and concentration.

Just for Today: I will adjust myself to whatever is, and not try to adjust everything to my own desires. I will take my "luck" as it comes, and fit myself to it.

Just for Today: I will exercise my soul three ways. I will do somebody a good turn, and not get found out. I will not show anyone that my feelings are hurt; they may be hurt, but today I will not show it.

Just for Today: I will be agreeable. I will look as well as I can, dress becomingly, talk low, act courteously, criticize not one bit; not find fault with anything and not try to improve or regulate anybody except myself.

Just for Today: I will have a program. I may not follow it exactly, but I will save myself from two pests: hurry and indecision.

Just for Today: I will have a quiet half-hour, all by myself, and relax. During this half-hour, sometime, I will try to get a better perspective of my life.

Just for Today: I will be unafraid. Especially I will not be afraid to enjoy what is beautiful; and to believe that as I give to the world, so the world will give to me.

These words and thoughts should give you a boost for the new year and may it be full of peace, joy and fulfillment.

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Ethics in Health Care: What Do We Have To Do? What Should We Do?

James T. Laney, Ph.D.

Reprinted with permission from the Journal of the Medical Association of Georgia, November 1990. Dr. Laney is President of Emory University. This article is derived from his speech at the annual meeting of the Georgia Hospital Association on January 11, 1990, in Atlanta. His address is 408 Administration Building, Emory University, Atlanta, GA 30322. Send reprint requests to him.

As the 1990s sneak in... , and we begin to ponder what we might expect them to hold in store for us, it might be instructive to look back at the beginnings of the 1980s, to two phenomena that have had an enormous impact on the community's expectations about health care.

One of these phenomena is AIDS, of which the first cases in this country were reported in New York and Los Angeles in 1981. The second phenomenon is C. Everett Koop, who was appointed that same year as Surgeon General of the United States (arguably Ronald Reagan's best act as Chief Executive). These two phenomena have essentially shaped dialogue about public health during the past decade.

On the one hand, AIDS has severely tested current medical know-how and spread a pall over the personal lives of millions. It has also raised knotty questions about the role of government in delivery of information, services, and resources. On the other hand, Dr.Koop has done probably more than any other single individual to raise public awareness about the dangers of smoking, alcohol consumption, and obesity. He has both reflected and helped establish a new national health agenda, which places at least as much emphasis on preventing illness as curing it.

Together, the private ravages of AIDS and the public service of Everett Koop suggest the forces at work in setting the community's expectations about health care in the next decade. They suggest, too, that the difference between what we have to do and what we should do is small indeed; that what we have to do—as a matter of economic prudence, political judgment, and corporate common sense—is also what we are called to do as a matter of social justice and common good.

I am not advocating here a utilitarian calculation of the social good. My sense is that when it comes to talking about health care we have already gone too far in talking about its cost to society. We all can recite the staggering statistics: In June, 1988, the Machinery and Allied Products Institute released a survey showing that between 1950 and 1986 the percentage of the Gross National Product devoted to health care rose from 4.4% to 10.9%, and will approach if not surpass 13% by 1992. Insurance costs are rising at the rate of 16 to 20% a year.

At the same time, the medical welfare net spread under the poor and elderly by the Great Society programs of 20 years ago are showing gaping holes: Medicaid covered 65% of the population below the poverty line in the mid-1970s but only 52% in 1987. And in some states, with very tight limitations in force, Medicaid helps only 20% of those who live in poverty.

As for Medicare, one study has projected a $300 billion deficit in the trust fund by 1995 and a $1 trillion deficit by 2005—when the first of the Baby Boomers will just be approaching retirement. Add to that the fact that the average age of the American population goes up each year, and it is not difficult to see crisis looming for the next generation of senior citizens. In 1900, 4% of the population were over 65; in 1983 that number had increased to 11%, in the year 2000 it will be around 17%. The fastest-growing age group in the country is that of people over 85 years old.

At the other end of the age spectrum the picture is no more encouraging. The infant mortality rate in the U.S. has remained somewhat steady over the past decade but still ranks near the bottom for industrialized nations. Since infant mortality is directly attributable to such factors as nutrition, shelter, prenatal care, and postnatal care, it indicates fairly well a society's general level of health. In the U.S. it serves as an indictment. Compared to Sweden, which has the lowest infant mortality rate in the world, the U.S. has much work to do. In Sweden, 99% of pregnant women enroll in prenatal programs before the end of their first trimester of pregnancy. In the U.S., the figures are 80% for white women and 62% for black women.

One final set of statistics suggested by this last: the statistics on health and poverty. Last year, following 8 years of the most far-reaching transfers of tax burdens and benefits since the 1960s, the bottom 40% of the population received less than 16% of the nation's income—the lowest figure since 1947, when such figures were first kept. Unfortunately, the decline in income for the bottom half of the population has meant a diminishment of their access to health care as well. In 1977, 25 million Americans—mostly the working lower and lower-middle class—lacked health insurance. One decade later that figure was 35 million.

The Robert Wood Johnson Foundation estimated that of 1 million Americans refused admittance to hospital for finan-

cial reasons in 1986, 80% were "black, Hispanic, poor, or uninsured." Yet these are precisely the people who need good health education and good health care. Chronic illnesses, such as heart disease, are twice as prevalent in lower income groups as in the rest of the population. And while low-income males are more likely than their wealthier counterparts to require coronary bypass surgery, they are half as likely to have it done.

All of these numbers, of course, serve two helpful functions. They help point out America's growing burden of paying for health care; and they help direct our planning for the next decade and beyond. Also, they emphasize how easily our society has learned to weigh costs and benefits when discussing what is really a matter of life and death —for individuals and, perhaps ultimately, for "the American dream" as well. As the dollar figures and percentages swirl in the debate about how to contain the spiralling costs, how to expand the limited pie, how to repair the fraying net beneath the needy, it becomes more and more clear that the image of health care is changing. The conversation focuses less on the care for the individual, and more on the care for society; less on medicine as a service or mission, and more on the "health industry" as a "business" with a "product" called healthy people.

We are rapidly building a two-tier healthcare system driven by management objectives borrowed from the business world. And while there may be nothing intrinsically wrong with such objectives in the realm of corporate finance and manufacturing, they do not necessarily translate well to the realm of patient services. Cost-containment devices such as the diagnostic related group (DRG) do not really contain costs, as we all know; rather, they move patients out the door "quicker and sicker," as the phrase goes.

Clearly, as the statistics and the trends and the projections all underscore, something must be done. It has been nearly 30 years since the President's Commission on Health Care Needs of the Nation called access to health care a basic human right. What do we have to do to make that right a reality for everyone in our community as we move toward the next millennium? What should we do?

I want to return to the two phenomena I mentioned earlier— AIDS and the Surgeon General— as a way of suggesting that what we have to do is also what we should do: that what is required as a means of comprehending and controlling the forces that now seem to control us, is also what is required as a matter of civic responsibility and human decency.

If the decade-long struggle with AIDS has had any good effect, perhaps it has been to teach us again that where health care is concerned, education is at least half the battle. Much of the fear about AIDS was and continues to be generated by ignorance; and much of the spread of AIDS was and continues to be fostered by our slow response and our hand-wringing over whether to say all we know about the precautions necessary for "safe sex. "

Similarly, the former Surgeon General has taught us that we need to be teaching healthy living. As early as 1976,

while still Surgeon-in-Chief of Children's Hospital in Philadelphia, Dr. Koop estimated that "as much as half of U.S. mortality" could be attributed to what he called "unhealthy behavior or lifestyle." It has been estimated that if the best possible medical care were available to everyone, the life expectancy of the average American would increase by three years; while if every American would eat sensibly, exercise regularly, and not smoke, the life expectancy would increase by 11 years.

The question this poses is whether those additional 11 years would be worth the effort. As one member of the AARP has put it, "The universal dread of death has finally caught up with the equally terrifying fear of being 'kept alive.'" The greatest fear among the elderly is fear of the nursing home. Why? Partly because of outmoded but lingering images of the poorhouse and institutionalized cruelty to the aged and infirm. And partly because nursing homes so often mean prolonged illness and financial ruin. Better to die of a stroke at a vigorous 70 than merely to suffer a stroke and watch your assets be drained by a dozen years of life-support machinery.

What we are learning is that, ingenious and even miraculous as all our medical technology and know-how are, they do not always enhance life, and they cannot unmake the irrevocable choices we often make. We need to encourage wellness as well as cure illness. We need to fund preventive medicine instead of defensive medicine. We need to learn again our finitude, so that more of our limited resources can be devoted to embracing life rather than denying death.

As a society we need to choose our course, and soon. Will we continue along the path we have been following, in which exotic and staggeringly expensive medical science holds out the hope of longer life for some, only if we ignore the basic health of 35 million of us? Will the government continue its retrospective financing of"defensive medicine," when it might better promote "the general welfare" through prospective financing of preventive medicine? Will we continue to lurch into whatever brave new world may await us in the next century—a world shaped by our ad hoc response to crisis through the court systems—or will we begin to articulate a realistic vision of what health might mean for mortal Americans at the end of this century?

I have no optimistic expectations about the ease with which any of these choices can be made. I am certain, however, that as a society we are well aware, by this late date, of the reality that confronts us. In the words of the National Center for Health Services Research: "We are moving from pursuing health goals 'at any price' to a realization that limited resources require deliberate choices. The goal of 'the best for everyone' provides no guidance for making trade-offs among alternative uses of resources when that goal cannot immediately be achieved." The question is whether as a society we share expectations about health care to a sufficient degree to guide us in our choices over the next decade. I believe we do. In closing I want to enumerate some of those shared expectations and outline their implication for our ethical deliberation:

First, as the social critic Michael Walzer has pointed out in *Spheres of Justice*, we share a belief that if illness can be cured, it must be. It should be cured; we have a moral obligation to cure it. Since the formulation of the Hippocratic Oath, the physician has been seen in many different guises, from court physician to NIH researcher, but always, too, as one who will not let money (or its lack) stand in the way of an act of compassion. The good physician should also be the Good Samaritan. This expectation carries over to hospitals as well. And, thus, the national outrage when we learn from the media that hospitals have shuttled indigent patients to the nearest charity ward, or, worse, when the patient dies during the ambulance ride from one emergency room to another.

Along with this first belief we share a second and related one— that medical care should be available to those who really need it. Physicians themselves deplore the amount of time they spend consulting with perfectly healthy but perhaps somewhat hypochondriacal patients, when the perfectly sick are languishing in the waiting room. Younger physicians now appear to be less ready to admit patients to the hospital, even when the rising numbers of malpractice suits would warrant their doing so out of self-defense.

We agree, I think, with the man who walked into the doctor's office complaining of headaches. The doctor ran a complete series of blood tests, ordered CAT scans, called in specialists, and prescribed a mild pain reliever. After a few days the man began to feel better. When the doctor presented a rather hefty bill, the man revealed that he was destitute and uninsured, and could not pay. The doctor, outraged, cried, "How could you in good conscience run up a bill like this, when you knew all along you couldn't pay?" And the man replied, "Doctor, where my health is concerned, money is no object."

Of course this apocryphal little story is a joke. We know that, because nowadays the patient would have been forced to swear out a financial affidavit and take out a second mortgage before treatment.

A third belief we share—one that will continue to direct our expectations about health care—is that government, especially the federal government, must and should devote vast public funds to the "medical-industrial complex." What is not so clear, however, is how this government commitment will be maintained. Currently the federal government spends hundreds of millions on medical research through the NIH alone, in addition to spending further hundreds of billions on direct health care through Medicare and Medicaid. Already the degree and manner of these commitments have become the focus of intense debate, as we have seen in the past year in congressional wrangling over Medicare, and that debate is likely to heat up as the tensions between the generations intensify.

Given these widely shared beliefs; given the aging of the population and the limits to exotic medical care; and given the lessons taught us by AIDS and the Surgeon General—I would like to suggest three ways we can approach the 1990s with the intention of making what we have to do reflect what we should to—making our prudent and cost-effective course of action a just and responsible course of action as well.

First, we have to begin to approach health care with a far more sensible acceptance of the limits to exotic health care, which essentially are limits to resources in general. As Daniel Callahan, a founder of the Hastings Center, has said, "In many cities in this country we have wonderfully equipped neo-natal intensive care units right down the street from terribly equipped schools. Does it make sense to devote such a tremendous quantity of resources to saving smaller and smaller babies, and then thrust them into a society that is characterized by second- and third-rate schools? We have skewed things too much toward health care as opposed to housing, education, and other things. Medical care cannot be allowed to trump everything else." (*NY Times Book Review*, December 24, 1989).

No one should underestimate the degree of political debate and compromise that will be entailed by our having to reorder our priorities. The public, the medical-industrial complex, and politicians might all have to give more than they want to on this matter. But one thing is clear: the American people over and over have voted for a basic level of health care for all; and in a world of scarce resources, this will mean limits to exotic life-saving devices. Increasingly public sentiment will favor the creation of "Living Wills," and of decisions made by a wider mix of people, including patients and their families. Hospitals and physicians will be challenged more and more to honor the wishes of those who have weighed length of life against quality of life and found it wanting.

Second, I believe that we will begin to see more discussion about quality of death as well as quality of life. The AIDS crisis has underscored what we ought to have learned from Elizabeth Kubler-Ross's studies of terminally ill cancer patients—that what we need to provide so often is a humane way of dying. I am not talking about euthanasia, of course. I am talking about the need for hospices, nursing homes, and other chronic-care facilities for an older, more debilitated population. It is estimated that the ratio of nursing home beds to hospital beds will increase from 3 to 2 in 1989 to 5 to I in the near future. As death from acute illness decreases in our society, the paradigm of health care may shift from one of miracle cures to one of ministry to the weak and infirm.

Thus, the third way we can bring our "must's" into line with our "should's" will be to bring medical training into line with medical practice. Currently physicians in training spend about 80% of their learning time in acute-care settings, while the overwhelming needs of the community lie in the areas of long-term care and prevention of illness. At the same time, there has developed an acute shortage of physicians, nurses, and allied health professionals in rural regions and in areas like Indian reservations and inner cities—areas, that is, where the most urgent issues of healthcare have to do with prenatal care, instruction in wellness, and help for chronic abuse of alcohol and drugs.

Furthermore, it is increasingly evident that our medical school curricula no longer can stress rote memorization at the expense of training in problem-solving and, just as important, empathy. The forces at work in our society and the needs of our diverse communities are conspiring to help us re-image not only the paradigm of health-care delivery but also the training and the skills of the health-care practitioners. The

skills of the human spirit in sympathy with another are becoming as important as the skills of medical technology, and the art of healing is regaining its place of honor alongside the science of curing. We must foster the continuation of such trends for the sake of a more secure system of health-care delivery and for the sake of a more humane society.

Finally, as a way of concluding these reflections on "what we have to do" and "what we should do," perhaps it is appropriate to think about what the vision and efforts of one man, working with many others, did do, for Georgia and for our region. The story has been told many times and in many ways— with enough variation in detail to give it the aura of legend—of how in 1929 Robert Woodruff was speaking to a man on or near his plantation at Ichauway, in Baker County. The man suddenly stopped talking, began shaking with a chill, and collapsed in front of Mr. Woodruff. That was Robert Woodruff's introduction to malaria.

At the time, the causes of malaria were well understood by medical science, and the use of quinine to cure it was well-established. Yet throughout southern Georgia and northern Florida, the disease sometimes reached epidemic proportions, affecting as much as 50% or more of the population in some counties. The effects of such widespread illness were enormous, both in terms of the immediate suffering that afflicted people and in terms of the economic consequences of farmhands' being incapacitated from working the fields.

Mr. Woodruff's first response was to order a barrel of quinine tablets and distribute the medicine free to anyone in Baker County who would take it under doctor's care. Out of this initial response grew a massive and enormously successful public health project that was one of the first drug prophylaxis programs in the country and served as a prototype for programs later implemented by the military on a larger scale. It also led directly to the employment of a public health officer in Baker County. In 1939, Mr. Woodruff funded establishment of the Emory University Field Station to continue work in malaria research and control, and to begin a program to control hookworm disease, which then affected more than 60% of the children in Baker County.

At Emory University itself, one of Mr. Woodruff's first gifts was $50,000 to set up the Robert Winship Memorial Clinic in 1937 in honor of his maternal grandfather, who, like Mr. Woodruff's mother, had died of cancer. Cancer in those days was considered "a social disease, " according to Mr. Woodruff's later reflections about the founding of the cancer clinic. People who could afford to would travel as far as the Mayo Clinic for treatment rather than let their friends know what their ailment was. Now, I do not know the source of this embarrassment about cancer. But Mr. Woodruff clearly saw the need to change it, and to make the finest treatment of cancer available in Atlanta. And, thus, from this beginning developed, over several decades, all the resources of the Robert W. Woodruff Health Sciences Center, which is part of a health-care network in this state that is the equal of any network in the country.

The point of these stories is not to boast, but to suggest what enlightened and visionary leadership can accomplish in providing health care. Thanks in no small part to Mr. Woodruff's designs, the state of Georgia enjoys some of the finest health care in the world. No one would suggest that this care is equally available to all, or that there are not enormous financial stakes behind the perpetuation of the system as it now exists, with all its inequities and inadequacies. The challenge of the 1990s, from the community's perspective, will be for all of us together to shoulder the responsibility of the next phase in this grand development. The next phase will be to re-imagine, as Mr. Woodruff did in Baker County, what it would mean to offer health to all, and to implement, as Mr. Woodruff did in Atlanta, a rational plan for re-educating people about health, even as we treat their illness.

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Our Auxiliary Stars

Through a network of twenty-eight auxiliaries representing thirty counties physicians' spouses have assembled a cast of over 2,000 volunteers dedicated to promoting better health care for the people of our state. The activities and projects they have chosen to achieve this goal are quite varied, yet very effective. The efforts of all our auxiliary members are shining brightly across our state this year. I would like to highlight the projects of several of our hard working county organizations.

Jean Murphree, AIDS chairman In BLOUNT County has been attending seminars and preparing programs for her area. Lou Wilson is guiding the auxiliary In focusing on Teenage pregnancy and working with an Unwed Mothers group. Icy Gordon is president of this small dedicated auxiliary which promotes AMA-ERF throughout the year and engages in a variety of Doctors Day activities.

The curtain has just come down on the 20th Annual CALHOUN County Medical Auxiliary Fashion Show. Ann Garner, chairman, and Patti Seay, co-chairman, coordinated the efforts for this project which raised $10,200.00 for local health related charities. Dorothy Veach wrote and produced the show which featured fashions modeled by eighty-nine auxiliary and medical society members and their children. Betsy Babb, president and Mary Sabens, Health Projects chairman are formulating a Teen Helpline Card for local high school students. Each year, this auxiliary funds a complete nursing scholarship at Jacksonville State University.

COLBERT County Auxiliary is raising funds for the Camille Gilbert Johnson Nursing Award fund. Two scholarships are awarded annually by the auxiliary and society, and this year these scholarships will be increased from $500.00 to $1,000.00 each. President, Donna Gosney and president-elect, Leta Mathews are performing double duty in the organization this year by serving as chairman and co-chairman of the A-MASA AMA-ERF committee.

Melinda Windham, president of the CULLMAN County Auxiliary has been instrumental in restructuring this group and increasing the number of leadership positions. Her efforts have led to increased participation and membership. Monthly Silent Auctions accumulate funds for AMA-ERF.

ETOWAH county auxilians under the leadership of Jean Pugliese have assisted with the production of the Annual Physicians Who Care Directory, planned a gala New Years' Eve Charity Ball, and worked to increase membership by 10%.

For three years, the FRANKLIN County Auxiliary with 100% membership, has sponsored a scholarship for a student pursuing a medical career. President Maureen Steele and auxiliary members are conducting projects that promote a drug-free environment in local schools.

In early November the JEFFERSON County Auxiliary conducted its fifth annual Kitchen Tour. This year's tour, "The Holiday Kitchen", benefited Camp Smile-A-Mile, Ronald McDonald House, and the JMCA Health Projects Fund, Vina Morros, chairman and Terri Glasgow co-chairman organized this project which raised $22,000.00. Under the leadership of President Diane Orso the auxiliary is working toward a joint project with the local medical society. Together they are researching the feasibility of a Health Adventure Program in Jefferson county.

Emily O'Toole and the LAUDERDALE County Auxiliary: have conducted programs focusing on the needs of children and adolescents, adopted needy families for the holidays, supported four local agencies with donations in December, sponsored the AMA-ERF Sharing Card, and purchased toys for the multiple handicap classes at the Handy School.

President Kay Gaillard and a large group of hardworking committee chairmen in LEE county have guided their auxiliary to completion of several community projects. Margaret Wright and Debbie Stokes chaired the Eye Screening project which involved students from the Opelika State Technical

College working with auxiliary members in the Lee county schools. Judy Dekich, AMA-ERF chairman, planned the first Sharing Card for the auxiliary. Debbie Dunaway and Carol Pittard co-ordinated a November Fashion Show at the Auburn University Hotel and Conference Center. Proceeds from this event and the Spring Auction will be used for health projects. A "Humor Cart" stocked with magazines, games, radio/tape deck, videos, etc. Will be purchased by the auxiliary and made available for use by cancer patients at East Alabama Medical Center. Barbara Patton and Katherine Davis are making final plans for the Spring Auction in April with hosts Peggy and Bill Lazenby. Dr. Lazenby is President-elect of the Medical Association of the State of Alabama.

Next month I will complete my review of auxiliary activities beginning with the Madison County Auxiliary and continuing to the end of our galaxy of stars, illustrating how our auxiliaries are striving to MAKE A DIFFERENCE by working to improve the quality of life in their respective communities.

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No Hospital for Me

*Walter C. McCoy, M.D.**

Hospitals do much to relieve human suffering. The care which many patients receive is superb. Unfortunately, the present critical nursing shortage has resulted in deterioration of care. Even before this problem, many patients had severe aversions to hospitalization. One of these patients was my friend, Dr. Charles Simmons. His story is as follows:

"No hospital for me!" Charlie expostulated, "It's no use, I just won't go." Then he sat back and smiled, almost gleefully.

For over 20 years Charlie and I had been good friends. He had sent me many of his problem patients and I had treated Charlie for his various ailments. He was a hard-working, affable medical man — said he still did general practice while his nephew and the younger group did too, only they called it "Family Practice." Charlie's only real bad habit, aside from his workaholic nature, was his two pack-a-day smoking. Over the years my insistent entreaties for him to stop had all failed. He always said, "Got to go with something, and I enjoy the way cigarettes go."

As I had long feared, Charlie did develop a squamous cell cancer of his left lung. "No hospital for me!" "But Charlie," I protested, "with the newer chemotherapy, radiation, and surgery you have a real chance to be cured." "No way," he replied. "Just no way you'll get me back into the hospital." Then he recounted in rich detail his hospitalization of three years ago. His enlarged prostate with its many problems had necessitated a TUR. He had gone reluctantly and stayed defiantly. "Now Charlie," I said, "It wasn't all that bad." He looked aside, then up at the ceiling. "Not so bad you say!" then he looked directly at me with narrowed lids. "It was pure hell! Aside from the pain and severe discomfort from having a garden hose in your very private area, you had at least four other afflictions." "What afflictions?" I innocently inquired. "What afflictions? I'll tell you! When you first went into the hospital they took away your INDEPENDENCE. Next you were ISOLATED—Oh, of course some of your doctor acquaintances and nurse friends visited you, but essentially you were isolated. In the third place they INVADED your body with IV fluids, catheters, multiple extractions of your blood—not to mention the possibility of endoscopics and lastly surgery itself. Finally there was a dedicated nocturnal troop who came in to awaken you for 'vital signs' or simply to just see how your were sleeping. There were other problems, but those four were mean enough."

"But Charlie, don't you want to be cured of this neoplasm?" "Cured?" he asked, "Cured? You know as well as I that you're just whistling Dixie. The 'cure' rate is so close to nil that it's not worth the bother. No, I'll work a couple of months winding up my practice and turning over what's left to my nephew. Then, if I'm up to it, I'll fish a little, travel a bit, and just sit and read and study and whatever. I may even quit smoking, but I doubt it — too late now anyway, so."

Dr. Charles Simmons did just that. I guess because he was 74, his malignancy grew slowly. I saw him infrequently. He rarely took any medicine. Towards the last, which was over two years later, he did take an occasional codeine. During his infrequent visits, Charlie would tell me things about himself — never very much at any one time. I learned that his medical heroes[1] were William Osler and Albert Schweitzer. He said that Osler had the most intelligent ideas about death — that it was not to be feared, but more like a friend, relieving us of all our final troubles. He saw Osler as having great wisdom, clinical astuteness and as very caring. Schweitzer, who gave up a successful career to help needy Africans, achieved his ideals despite all difficulties: he was ever inspiring.

Charlie complained that doctors had in part been the cause of all the maddening malpractice problem. If they had been poorer, who would have cared to sue? It seemed that simple to Charlie—they were being punished for their greed. They want Mercedes and Jaguars rather than Fords, Toyotas and Chevys. But must medical men, he felt, were really very caring and would do just about anything to help their patients. Busy as he always was, Charlie hated to keep his patients waiting, "Their time is like mine, very precious, " he would say. Many of his poorer ones he just deliberately forgot to bill. I guess I would call him an "easy touch," for he never refused any half-reasonable request for help.

Although he was not a church-goer, Charlie had a deep faith. The Sermon on the Mount, he told me, was the greatest. He studied the parables: "We can all try to be real Good Samaritans." The parable of the Prodigal Son gave Charlie problems — how could the elder brother be so unfeeling, so unloving about his wild kid brother? "There go a lot of us," he remarked, "so pious and judgmental about our brothers."

Charlie never quit his smoking, but towards the last he did cut down to less than a pack a day. He still enjoyed them although he realized that they were killing him. But then as he said, something had to do us in anyway.

Finally during the last painful week of his life his devoted wife, Hazel, persuaded him to come into the hospital for relief. We gave him enough morphine to control his pain, but after two or three days he lapsed into a gentle coma and left us forever. He often remarked, "You know, John, it would be much better if our younger colleagues could spend a few days with these hospital afflictions before they put anyone else in this place!"

[Editor's note—Names have been changed, the author advises, but the narrative is otherwise factually correct.]

*1900 14th Avenue South, Birmingham, AL 35205

(1) Wheeler, H. Brownell, Nhattuck Lectures — Healing and Heroism, New England Journal of Medicine, 1990, 322.1540-8

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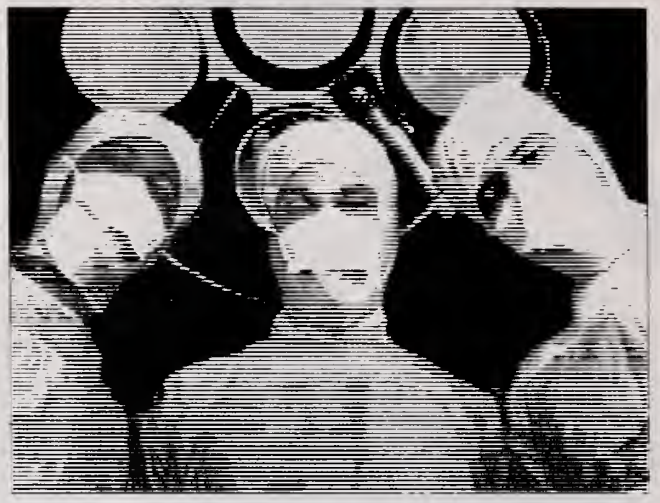

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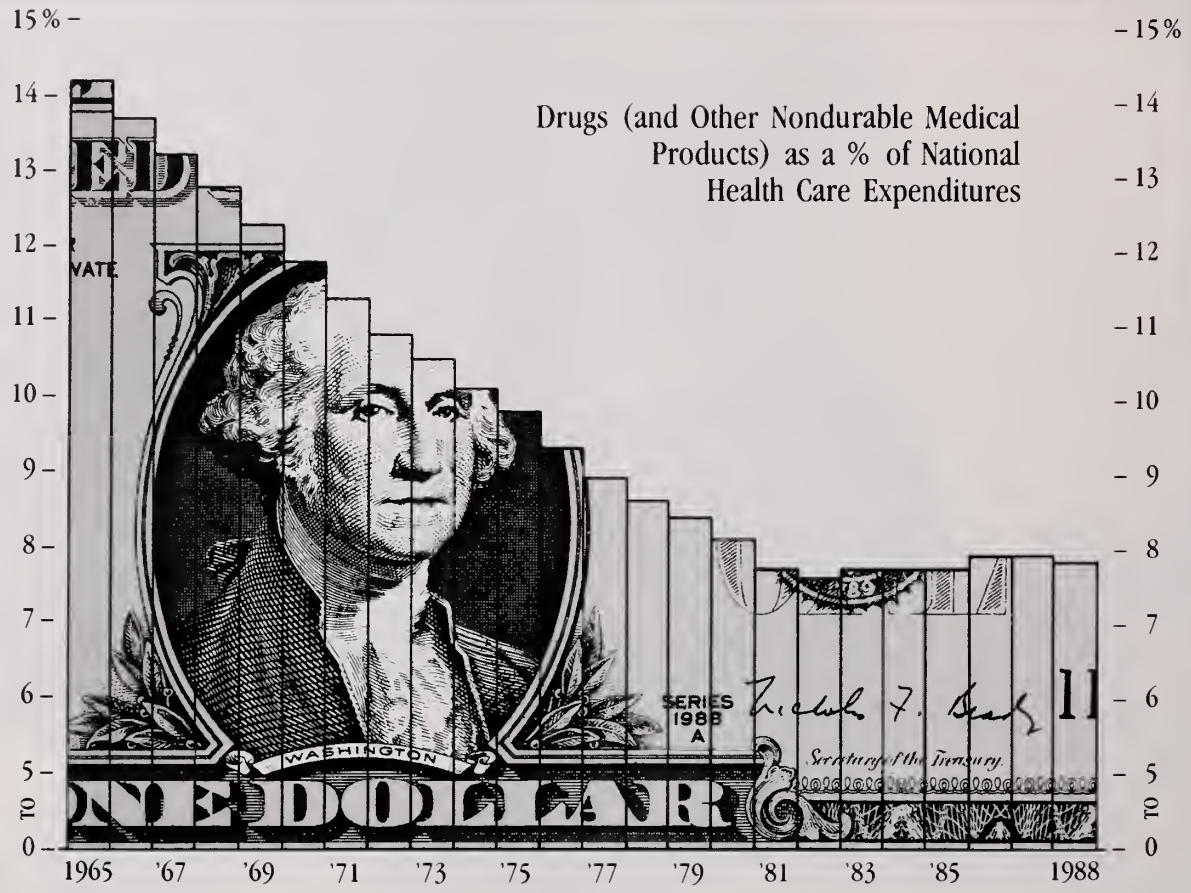

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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

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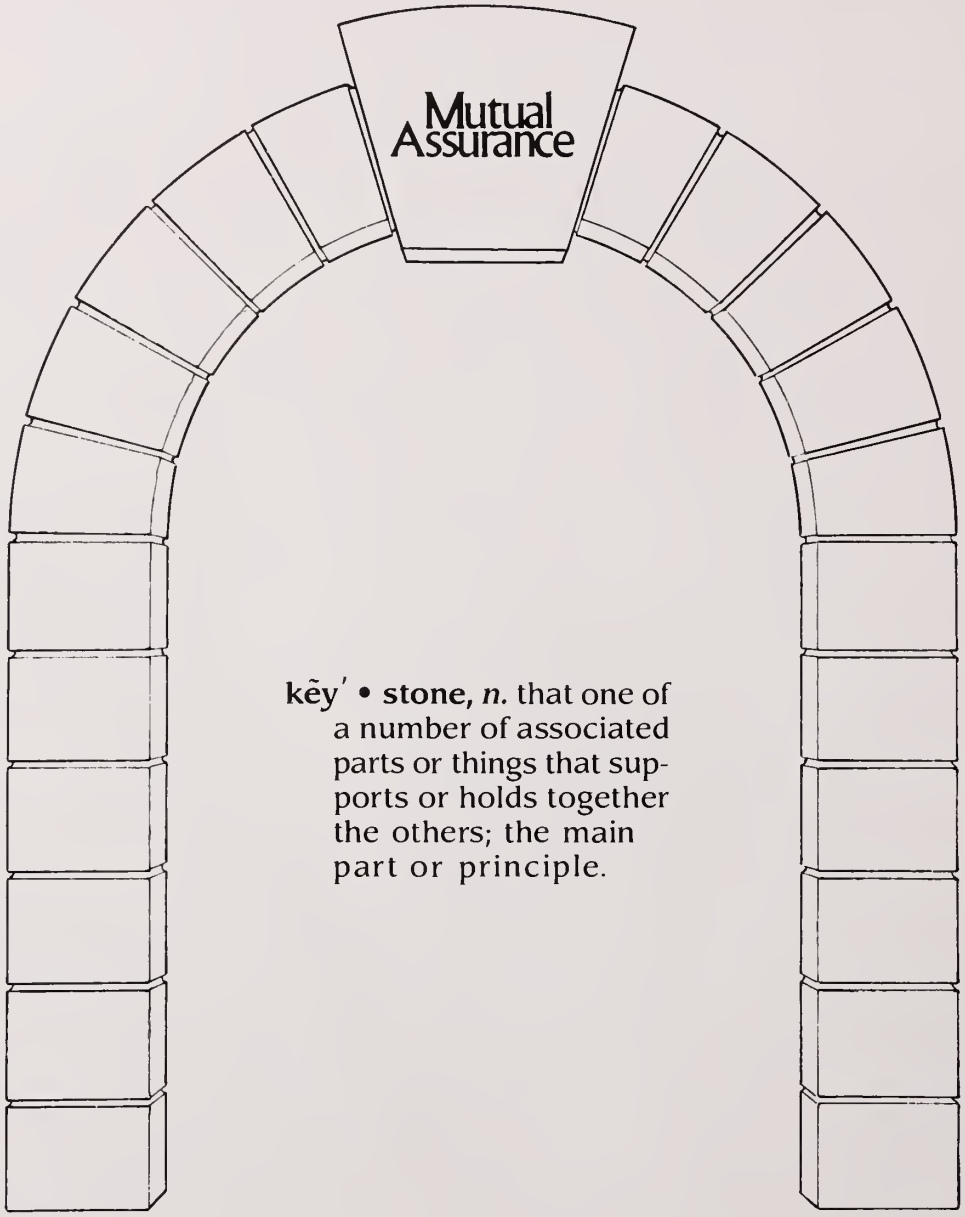

kēy′ • stone, *n.* that one of a number of associated parts or things that supports or holds together the others; the main part or principle.

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In This Issue

Cover—A Byzantine artist of the 14th Century (c. 1342) thus depicted Hippocrates, the most famous name of ancient Greek medicine, in an illustration of a manuscript in the collection of writings called *Corpus Hippocraticum*—Bibliothéque Nationale, Paris. In this issue a Vanderbilt scholar examines the contemporary validity of the Hippocratic Oath (p. 6), while a New Jersey physician-editor weighs some Hippocratic aphorisms and finds merit in them (p. 10).

EXECUTIVE DIRECTOR

S. Lon Conner
Executive Director, MASA

C'est la guerre

This will not be a good year for physicians who believe that the federal government, and those private carriers who follow the government's lead, have denied them equity for their services.

Those who expected to have their grievances redressed by RBRVS, for example, may be met in Washington with the curt reply to the effect that the immense cost of Desert Storm has been such a drain on the public treasury that physicians' expectations for justice are now petty, if not downright unpatriotic.

Washington will say of all the cuts in Medicare reimbursement, present and to come, much as General William Tecumseh Sherman said to the Mayor of Atlanta on Sept. 12, 1864.

Sherman had ordered that all civilians leave Atlanta within five days. To the Mayor's complaint that this would cause great suffering, Sherman replied:

"I give full credit to your statements of the distress that will be occasioned by it and yet shall not revoke my order, because my orders are not designed to meet the humanities of the case."

Something in that general tenor may be expected of Congress, OMB and HCFA. It is my hope that by the time these words appear, the Gulf War will be at or near a successful resolution. But even if it is, I suspect the national sacrifice in blood and treasure will remain for a long time as the easiest answer to doctors' laments that they are being treated shabbily by their country. I can even hear the chairman of a congressional committee, answering a physician witness testifying on equitable treatment, with a sarcastic, "Doctor, you do know this country is (or has been) at war, don't you?" Whatever injustices physicians may suffer will be effectively trivialized by comparison to the far greater sacrifices of thousands of young men and women in the Arabian Desert.

There is another facet of the Gulf War that occurred to me during the first weeks of hostilities. Our military planners had plainly opted to trade money for lives, a decision I heartily endorse. The use of such high technology as the Tomahawk missile, laser-guided bombs and B-52 saturation bombing of the entrenched Iraqi forces in Kuwait reflect America's historic belief that sparing the lives of our servicemen to the maximum possible extent justifies the most expensive technology.

More than 200 Tomahawk missiles, at a cost of $1.2 million each, were launched in the opening hours of the conflict from U.S. Navy vessels far away in the Persian Gulf. Not many Americans would make so bold as to protest the cost, because each of us watching the news knew that these robots were sparing American lives. If 200 missiles would achieve that goal, most of us felt, dispatch 2,000 or 20,000. Hang the expense.

The irony here, however, must be noted. In our national debates on the eve of war we had reached the point of putting a price tag on the lives of our people. We had slowly succumbed to the argument that how much society would spend to save life or promote health has finite limits, and those limits were being methodically lowered. We had even presumed to know how to place a price tag on "quality of life" that might be gained, or lost, by treatments permitted or by treatments denied.

And we had reached the point in our cost-accounting of human life where we could say with a straight face that it is better to distribute resources so that a greater number of people might be somewhat better off than that a few might be dramatically better off. Oregon had actually begun what many ethicist pundits were already rationalizing—playing God with computer-allocated dollars.

We are saying in the Gulf War that the lives of our servicemen are worth all the mountainous debt we are accumulating in expending exorbitantly costly technology. I certainly concur in that philosophy. But I have trouble squaring the Arabian equation with the domestic one that was evolving, one in which cost was rapidly becoming a more important determinant of resource-allocation than life or health.

While I share with most Americans the belief that this is a just war, if there ever was one, and that money is no object in minimizing the loss of our sons and daughters, I believe that such considerations taken in the heat of battle will dramatize and alter the national debate over the value of human life and health.

And that may well be one of the happier side benefits of this conflict. Wars have often rededicated Americans to their own beliefs in the sanctity of man. Wars have taught us the immense wealth of living under freedom. They have taught us the value of individual relationships and the fragile thing called human life.

This much at least seems clear: the Gulf War has suddenly distorted all domestic quarrels—whether for better or worse, none can now say. But I am an optimist.

PRESIDENT'S PAGE

T. Riley Lumpkin, M.D.
President, MASA

Success!

What is success? Are you successful? How do you measure whether you are successful or a failure? First let's define what success is from our limited viewpoint and from a global viewpoint.

From the dictionary we see the simple definition as: 1. "the achievement of something desired or attempted," or 2. "the gaining of fame or prosperity," and thirdly, the old standby "one that succeeds."

If we look into the initial definition and count your personal achievements, such as a fairly happy and contented marriage, recognition in your field of work as a competent and "successful" physician, and are socially acceptable to the greater number of your "friends and acquaintances," then you have arrived or are considered successful by your peers as well as yourself. But consider for a moment or two, what do you as an individual really consider successful?

Mr. Herbert W. Armstrong wrote a classic paper in 1960 titled *The Seven Laws of Success*. It was valuable in its content then and is even more timeless as I bring his ideas and findings to your attention in this time of conflicting ideologies from across the world. This research by this great man is like a breath of fresh air to all of us in this suffocating struggle for success. His answers and guidelines prove that no human need ever become a failure. All you need to do is follow these seven basic laws.

We can all list many people we term as successful, but if you look closely at their lives, we see beneath the surface of what we think is success as we see heartache, sorrow, disappointment and failure. Few people really have success in a true sense; movie stars are glamorous, but are not really successful in their personal lives, usually ending up in divorce, out of the news, or end it all with high living and suicide. Many of our inside traders on the stockmarket are "wealthy" but are not but a few steps from the law catching up and bursting their balloon of success. Many financiers are superficially on "top of the world" but soon the faulty structure built on a few of the basic steps falls apart because it doesn't have all the necessary ingredients.

If we look at a historical figure like Solomon we see he became king of his people because he wisely asked for *wisdom*. But he did not apply his wisdom to the proper use and did not use all the seven steps that are necessary for success. He knew all the seven steps but did not think it was necessary since he thought he had all the answers and did not need the help from all the steps. Let's look at them.

So to understand the seven basic laws of success we must consider that a person has the ingredients of character that we are all privy to and reveal at times, but do not flaunt but may "even hide" too often. These basic principles of character may or may not be included as a basic law but include in some of the laws as automatic ingredients. These are courtesy, loyalty, dependability, honesty, patience, punctuality, reverence, courage, etc. So we assume that no one can become a real success without possessing these principles of right character.

The first law of success is the ability to define success, to have a goal in life, to know what your purpose in life is and in what direction you need to go on. Do you have a purpose in life or do you move only by the pressures that push you backward, forward or to the sides like a leaf in the wind? So the circumstances of events cause you to move or dodge, or are you successful in your plans to progress in your desired direction and within your scheduled time

table. If you have no aim in life, or if it is very nebulous and not tangible enough to little for you except be a victim of circumstances, then you are lost and doomed to failure.

So the first law of success is to set the right goal for you and your family. Not just to make money or to gain a new house or membership in the country club or to gain stature in the eyes of your peers and others in the community. But to fix the right goal early as possible so that you can define success and once you have learned what success is, then make that your goal in life.

Most of us never think of having any purpose in life except to survive, make money, gain status and enjoy the passing pleasures of the five senses. Following this course the path we stumble over has many obstacles of sorrows, fears, frustrations, worries, heartaches, confusion, troubled consciences, empty lives and death.

We know most of the so called "successful" men had some goals but their lives were stymied by the short-term goals and they never used all the basic seven laws. So rather than being a victim of circumstance, find your goal and aim with a planned purpose. The proper goal is one so intensely desired it will excite you vigorously and will add incentive and determination.

The *second law* is one that is vital and one cannot be successful without it—this is *education* or *preparation*. Animals are born with instinct and attempt to walk immediately or know where to go for lunch. Man has to learn, he is taught to walk, to think, to eat, to drink. Once they learn how to survive they have to learn to read, write, dress, and problem solve. Sure we may learn music, mathematics, engineering and other thinking skills as well as learning normal and spiritual characteristics; but it all requires study, learning and education. Even the self-made man has learned to cope in his particular area without "formal" schooling, but he has been educated on the street or where ever he learned the skills that were necessary to become a "self-made man."

The banker, the politician, the physician, the writer have all been educated but the special talents that each person is given has to have preparation to get these talents to a certain level of competence to be effective. They all must educate themselves using their best talents in a way that fits them and their role in life. They must learn the way with the right education to make possible lasting success thus fulfilling the purpose of life.

Continued next month.

The Abiding Validity of the Hippocratic Oath

*Mark D. Fox**

In New Jersey Medicine
[Reprinted with permission]

Physicians, ethicists, and other medicine-watchers make frequent references to the "Hippocratic tradition" in discussions of medical ethics. This tradition, they often assert, has shaped the central commitments and obligations of physicians since antiquity and continues to do so today.

Rarely, however, do they offer a definite characterization of this tradition. The Hippocratic precept: "First to help, or at least to do no harm"[1] represents the common understanding of the Hippocratic tradition. While this precept stands as the keystone of the contemporary understanding of the Hippocratic tradition, it is the Hippocratic oath that serves as the vehicle for the profession of the physician's commitment.

Interestingly, the precept that represents the Hippocratic tradition does not even appear in the oath; it comes instead from a later Hippocratic document, though its fundamental sentiment is at least implicit in the oath. Thus, the oath provides the foundation for the ongoing tradition and also serves as the vehicle for the transmission of that tradition. The question remains, however, whether the oath is appropriate to the contemporary understanding of the physician's responsibilities.

The Hippocratic oath was composed 2,500 years ago as a manifesto for physicians of the ascetic Pythagorean sect. Some physicians contend this document grew out of a world view totally foreign to our own and, thus, is inappropriate as an expression of contemporary medicine's fundamental obligations.[2] As evidence, they cite the swearing of the oath before Apollo and all the gods and goddesses. Furthermore, the oath's proposed model of medical education, regarding your teacher's family as your own, does not fit with modern experience.

Perhaps the most significant objection that can be raised, however, is simply the fact that the oath never was intended to profess the commitments and obligations of all physicians. The oath was written for a very specific, and very ascetic, sect. The strict prohibitions of the oath reflect the philosophical and ethical commitments of the Pythagoreans.[3] The prohibition against surgery is consistent with their emphasis on dietetics; likewise, their prohibitions against abortion and suicide reflect their belief that life begins at conception and their commitment to uphold and preserve the sanctity of life.

Clearly, the world view of the author (or authors) of the Hippocratic oath is quite removed from our 20th-century experience. In addition, the specific content of the oath is largely at odds with contemporary medical practice and thought. Nevertheless, many medical school graduates continue to profess the oath, and the Hippocratic tradition is upheld as an ideal. In fact, the classicist and medical historian Ludwig Edelstein sees in the oath the paradigm for all subsequent reflection on medical ethics.[3]

Why, we may ask, is an oath, so foreign to the contemporary practice of medicine, still treasured and regarded as the foundation for medical ethics?

One may argue, not incoherently, that the oath stands as a traditional symbol of an ancient profession. The contemporary utterings of the oath symbolize the tradition in which the oath-taker stands. In his essay on the medical covenant, AMA Executive Vice-President James S. Todd, MD, suggests that in the oath, the physician assumes certain duties and obligations in exchange for the support and latitude that society accords to physicians.

Although the terms "profession" and "vocation" had not yet been applied to the practice of medicine at the time of the oath's composition, the oath signals the foundation for the emergence of the professional identity of the physician. Thus, the oath today symbolizes that professional identity, rather than constituting a commitment to its specific terms. Others may see certain specific commitments in the oath as central to the fulfillment of the physician's vocation, even today. For example, Dr. Lafrance suggests, in response to Dr. Collier, that "the firm commitment in

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favour of life," that he contends is central to the oath, is as relevant today as it was at the time of the oath's composition.[5]

Dr. Todd, on the other hand, sees the oath as "a philosophical allegory for promising to practice with faith in science and new knowledge."[4] In that regard, the oath pledges to apply "measures for the benefit of the sick according to my ability and judgment."[4] The oath then, in Dr. Todd's view, provides the vehicle whereby physicians include ethical provisions in their covenant with society. Each of these positions ascribes value to the oath, either as symbol, covenant, or specific commitment to the sanctity of life.

...Stanley Bergen, MD, and Cheryl Tice... assert, "The meaning of the Hippocratic oath changes with the times, social conditions, and medical knowledge," but the oath "provides flexibility of interpretation and adaptation to changing times and conditions, allowing it to retain its validity."[6] However, while the oath has been subject to a variety of interpretations through the ages, none of these positions accurately specifies what accounts for the abiding validity of the oath.

The Hippocratic oath is a remarkable document in terms of its role as the faint beginnings of the professional identity and vocation of the physician; also remarkable is its longevity as the paradigm for medical ethics. And yet few have come to appreciate the fundamental moral insight of the oath that accounts for its abiding validity as a statement of the physician's moral commitment. The significant insight of the oath is its recognition of the fundamental asymmetry of the relationship between the physician and the patient.[7] The oath calls for responsibility on the part of physicians in light of the considerable power they possess in relation to a vulnerable and disadvantaged patient.[8]

An individual, the patient, presents to the physician with an illness or injury. In such a condition, the patient is fundamentally compromised, at a disadvantage. Furthermore, the patient presents to one whose profession is to heal, one who has the knowledge and experience necessary to restore the patient to health.

The physician has knowledge that the patient lacks and which the patient requires to be made whole again. In the course of this clinical relationship, the physician, who may well be a stranger to the patient, encounters the patient in the most intimate of ways. The physician has access to the patient's life, history, family, and body in extraordinary ways, while the patient does not have the same access to the physi-

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cian. Furthermore, this asymmetry and the physician's power and status in this relationship are sanctioned by various social institutions and professional organizations. The oath recognizes this fundamental asymmetry; in response, the oath acknowledges an obligation inherent in the practice of medicine to respect the patient and to be sensitive to the risks and vulnerability which the patient experiences. The oath's admonitions against sexual misconduct and all kinds of mischief, as well as its respect for the confidentiality of the relationship, grow out of this view of the moral nature of the physician-patient relationship.

The recognition of this asymmetry and the subsequent commitment to moral sensitivity regarding the relationship between the physician and patient constitute the fundamental moral insight of the Hippocratic oath. Further, it is this insight that provides the foundation for the subsequent Hippocratic tradition and ensures its abiding validity for contemporary medicine. The oath stands as the physician's moral resolve with respect to this asymmetric relationship: both as a personal vow or dedication, and also a commitment to patients and society.

Regardless of how the face of medicine has changed or will change, the moral resolve professed in the oath constitutes its abiding validity.

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Aphorisms of Hippocrates

*Morris Soled, M.D.**
In New Jersey Medicine
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The following is a sampler of aphorisms by Hippocrates (circa 460-375 B C.) of Cos.

No victuals ought to be given, or forced upon such as have fits returning periodically. But food ought to be rather diminished before manifest tokens appear to judge of the disease.[1]

Author's note: Treatment of epilepsy with starvation or fatty diet so as to cause mild acidosis was mentioned in my time at medical school (ketogenic diet), 2,400 years later.

If in a disease sleep brings labour and pain, it is a mortal sign: but if ease and mitigation of pain, it is a good sign.[1]

Author's note: If a patient with peritonitis or pleurisy falls asleep and his breathing consequently becomes deeper, the change is more likely to cause pain from deeper excursion of the diaphragm transmitted to the abdominal viscera, hence "labour and pain." If the sleep brings healing rest without increased pain, the patient was not ill with diffuse peritonitis and, therefore, more likely to survive. The inflammation is more likely localized away from the diaphragm.

If he has pneumonia, the upper surface of the diaphragm and adjacent pleura are less likely to be involved. This author well remembers his pleuritic pain of lower lobe pneumonia at age ten, before penicillin, and its interference with sleep.

Those who have gripings in the belly, and violent pain about the navel and the loins, which cannot be removed by purging medicines, nor any other means, will fall into a dry dropsy.[1]

Author's note: A dry dropsy refers to tympanitic distention. The above text is expecting that the onset of intestinal obstruction with severe peristalsis (violent pain) will lead to an ileus with distention. A laxative will not relieve the obstruction.

Those who have their sides swelled and a murmuring in their guts, succeeded by a pain in the loins, shall have a looseness except they break wind, or void a great quantity of urine. These things happen in fevers.[1]

Author's note: This may be a description of the insidious onset of Bright's disease, with oliguria and flank distention (fluid retention), followed by aching in the renal area ("pain in the loins") generally attributed to renal swelling and consequent painful stretching of the renal capsule.

If the patient's condition worsens, uremia ensues with uremic colitis and diarrhea ("a looseness"). If the patient recovers, bowel function continues ("they break wind") without diarrhea as the transient uremia subsides and diuresis follows the oliguric stage ("void a great quantity of urine").

The nephritis may follow a febrile illness by 7 to 20 days (such as poststreptococcal glomerulonephritis). Although nephritis is afebrile in our textbook, Hippocrates mentioned that "fevers" are a part of the illness without being specific as to when. Perhaps he saw lingering febrile sore throats.

A further subtlety in differential diagnosis is the mention of "murmuring in their guts" as concurrent with the flank swelling, so that the bowel motion is noted to be continuing ("murmuring"), occurring with another process outside the bowel. The oliguria causing the flank swelling is earlier than the pain in the loins when the kidneys later swell enough to stretch the renal capsule.

The diarrhea follows as uremia supervenes in those who are not yet recovering. The persistence of bowel sounds and flatulence (as opposed to diarrhea), and arrival of diuresis, harbingers of escape from uremia, portend a favorable outcome in a composed sequence of bedside observations.

CONCLUSION

Clinicians who take pride in their powers of observation can still benefit from analytical art in description by Hippocrates.—

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*Dr. Soled is a member of New Jersey's Committee on Publication.

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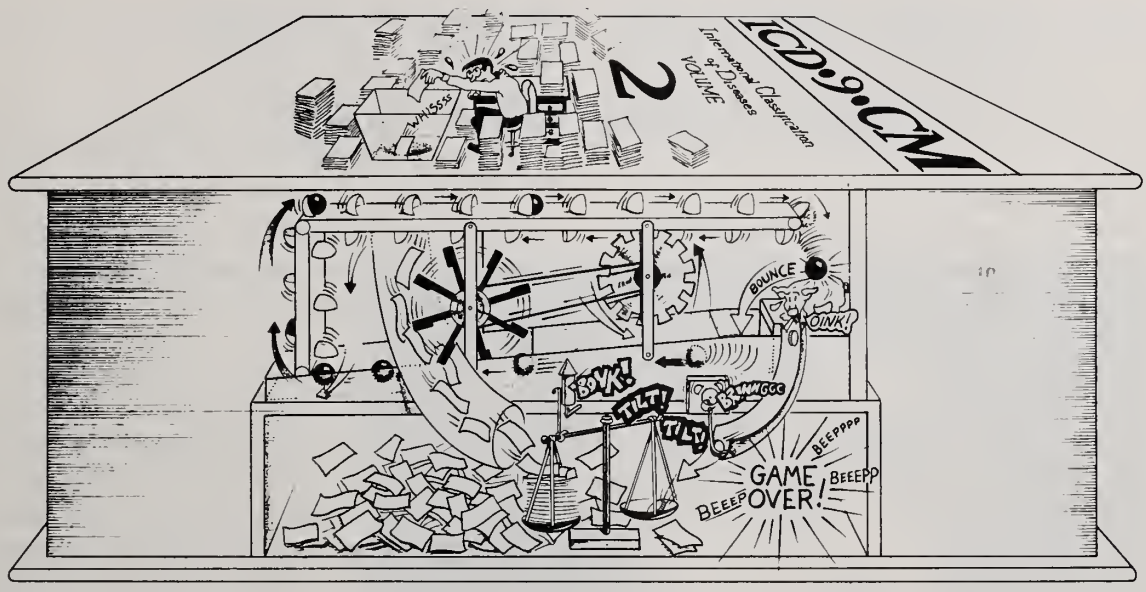

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Patients' Rights

*William I. Silvernail, Jr., M.D.**

Life support systems, in all their forms, can be crucial to the recovery of many critically ill patients. For some, when recovery is not possible, the life support system becomes an unwanted burden to them and their families.

I do not believe that the public is very much aware that they have the right to accept or refuse medical treatment. They do have that right. They have the right to determine what treatment is given and related to that treatment, how much is provided and for how long. The public is, I believe, equally unaware that they have the additional right to appoint an agent to act on their behalf if they are medically incapacitated. The mechanisms to do this are the living will and the durable power of attorney for healthcare matters. Both are considered "advance directives" and both are best created in the pre-hospital setting. Conversational expression of wishes and desires related to the use of various life support systems can be insufficient unless it can be verified by several witnesses and presented as "clear and convincing" evidence of those wishes. Appropriate documents simplify the proceedings and should be created, signed and witnessed.

Federal legislation has now mandated that healthcare providers, doctors and hospital staff, ask all patients if such advance directives have been executed and will see that legally valid directives are carried out. The information that an advance directive has been created or copies of the documents are to be retained in the hospital medical record or physician's office records for future reference.

The three areas of discussion that follow were written in the vein of patient education to emphasize and personalize the concepts. They are keyed to the principle of self-determination and by extension the right to die with dignity.

Living Wills and Durable Power of Attorney

This portion is about patients' rights and "end of life" medical decision-making. It is about taking charge at a time in life when fate can deprive you of active participation in managing your own medical care.

It is intended to inform about a living will and how to ensure that treatment directives are followed. Patients should create this document thoughtfully when well and competent. Its presence can help avoid conflict and prevent the delivery of unwanted treatment. Such a document can perserve and strengthen peace of mind by easing the potential burdens of life's final days.

An "advance directive" is more important than ever because end of life medical decision-making has become more complicated than ever before. Scientific gains and technological developments over recent years have been truly remarkable. The advances have offered new hope to many patients and families. To those whose loved ones are surviving only because of the complex life support systems to which they are attached, the gains and development have brought grief.

Patients have rights. Patients and their families have choices. When patients and families exercise those options, they remain in control of the decision-making process to initiate, to withdraw or to modify a treatment program. In addition, when patients take appropriate action to record their choices in advance of a medical catastrophe, they control how much and what kind of care is provided. Their wishes will then prevail even if unconsciousness or incapacitation has occurred.

Two patients' rights head the list. Foremost is the right of self-determination. The second, which stems from the first, is the right to refuse medical treatment. The patient has the right to decide what kind and for how long he wants to be attached to an array of life sustaining hardware. He can dictate the limits and the terms under which various treatments are given or withheld. He decides the circumstances when additional therapy is unwarranted and unwelcome, when additional therapy is futile and will not extend life, but will prolong the dying process. The patient determines when enough is enough and there are no discernible benefits to be derived from more mechanical devices, more drugs or more of anything beyond ordinary care and comfort.

With an aging population, very few adults, these

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days, have been spared the distress of exposure to the terminal events of an incurable condition in a family member. Nor have many adults avoided the strain of making the difficult decisions thrust upon them in the high tech cardiac, surgical or medical intensive care units. Even though aided by the doctors and nurses, many have had to pray for guidance in trying to guess what the family member would have wanted for himself or herself. Think and plan ahead. What will he want? How does he want "end of life" decisions made?

There are two documents that can help resolve these questions: the Durable Power of Attorney for Healthcare and the Living Will. The Durable Power of Attorney allows an individual to appoint a surrogate or agent to act on his behalf and in his best interest if he is unable to do so. The document should be written in such a manner as to direct the appointed individual in how to make health care decisions. It should include a statement of his desires concerning life-prolonging care, treatment, services and procedures.

The Living Will is a declaration to the care-givers (doctors, nurses and hospitals) related a patient's desire that dying not be artificially prolonged. This witnessed and notarized declaration should contain statements similar to those in this sample: "If at any time I should have an incurable injury, disease, or illness certified to be a terminal condition by two (2) physicians who have personally examined me, one of whom shall be my attending physician, and the physicians have determined that my death will occur whether or not life-sustaining procedures are utilized and where the application of life-sustaining procedures would serve only to artificially prolong the dying process, I direct that such procedures be withheld or withdrawn, and that I be permitted to die naturally with only the administration of medication or the performance of any medical procedure deemed necessary to provide me with comfort, care or to alleviate pain.

"In the absence of my ability to give directions regarding the use of such life-sustaining procedures, it is my intention that this declaration shall be honored by my family and physician(s) as the final expression of my legal right to refuse medical or surgical treatment and accept the consequences from such refusal.

"I understand the full import of this declaration and I am emotionally and mentally competent to make this declaration."

All of the above is intended to see that a patient's wishes are complied with. The documents are intended to deal with irreversible medical conditions and do not preclude maximum efforts to achieve recovery if that is possible. Patients will not be abandoned, even if reversing the medical situation is obviously without hope. Dignity in death, as in life, will be maintained. Extraordinary intervention may cease; care, comfort and concern will still be delivered in full measure.

Do Not Resuscitate

Healthcare decisions and choices are never easy and are often formidable. Those that are made at or near the end of life can be especially difficult. Openness and frankness among patients, their families and their doctors, with preparation by advance care directives can smooth out the process. Involvement and participation by others concerned with our well being can provide substantial support while options are considered and choices made. Input from nurses, ethics committees, hospice, clergy, social workers and occasionally judicial review can contribute in such a way as to make an uncomfortable situation bearable.

There are times when resuscitative efforts are appropriate and indicated and times when they are not. When an otherwise healthy individual has a heart attack, a series of events can take place that may be reversible. The heart may twitch ineffectively, blood no longer circulates, unconsciousness follows from lack of oxygen to the brain and respirations cease. That is the typical "cardiorespiratory arrest". CPR or "cardiopulmonary resuscitation" is initiated primarily to prevent permanent brain damage while gaining time to treat the sick heart. Chest compression squeezes the heart to provide a pulse. Mouth to mouth, or if available, mouth to airway tube breathing provides oxygen. This is continued until paramedics arrive or the individual is delivered to an Emergency Room. Then the resuscitation picks up steam with such activities as electrical defibrillation of the twitching heart; tracheal intubation and manual or mechanical ventilation and emergency intravenous or intra-cardiac medications and fluids are available. If sufficient heart muscle is saved by this intervention, recovery is a very good possibility.

If there is cardiopulmonary arrest associated with certain end of life events, then death has occurred and inflicting resuscitative intervention on that individual is not indicated and not appropriate. This type of terminal patient includes those with widespread cancer, end stage pulmonary disease, end stage renal disease or end stage neurologic disease. Very few people in

that state wish to be subjected to what amounts to prolonging the dying process. When, under those circumstances, death is delayed a few minutes or a few hours, should this futile activity be repeated again and again? Surely not. Patient and family consent to "Do Not Resuscitate" orders prevents this from happening.

All patients do not want full "codes" for cardiopulmonary resuscitation, nor should they be forced to accept such intervention if the consensus is that it would be futile and prolong the suffering associated with dying.

Not coding or attempting resuscitation of a terminal patient is not in conflict with the delivery of high quality medical care or our standard objective of saving and sustaining life. Our commitment to this objective is not diminished when we recognize that initiating or continuing treatment may not constitute optimum care. This is the case when the burdens of such treatment outweigh the benefits to the patient. Then the objective must be to permit the suffering to end and allow as peaceful a death as possible.

The patient's desires are primary and should be followed. They can be conveyed to the healthcare providers by a living will and durable power of attorney which provide a mechanism to effectively refuse or limit treatment. Members of the health care team can provide assistance to the patient and family in making decisions. Consultation with these health professionals is recommended. Life sustaining intervention, including cardiopulmonary resuscitation, will be provided if no written documentation is present in the record. "Clear and convincing evidence" of a patient's wishes is the way to direct and control how care is managed.

When May We Withhold Treatment?

In June, 1990 the United States Supreme Court handed down a 5 to 4 decision supporting the State of Missouri's refusal to authorize removal of Nancy Beth Cruzan's feeding tube. While the ruling recognized the right of self-determination, it also noted that statements made to parents and friends that she did not wish to be sustained in a vegetative state was not "clear and convincing evidence" of that desire.

A terminally ill patient is often competent and aware of his increasing frailty. He can, right up to the end, be a participant in the healthcare decisions that concern him. He is often older and has already given considerable thought to how his "end of life" events should be played out.

The vegetative patient, on the other hand, is younger, often very young. Before the sudden devastating event—motor vehicle accident or drowning that produced the brain damage and coma—the thought of dying never seriously crossed his mind. The latter group rarely create an advance directive document nor do they usually see a need for one. Even though they (the vegetative patients) have no perceptible interaction with the outside world, their youth provides the potential for substantial life expectancy. Therefore, what the families and care givers are dealing with is "an unacceptable quality of life" but not a terminal situation. The terminally ill patient, by refusing treatment, is simply asking for the right to die a natural death unencumbered by unwanted therapy—tubes, ventilators and medication. The vegetative patient, not anticipating such a situation and not having provided guidance to his care givers, has become a victim of sorts for the second time—once when the accident-producing coma occurred and the second time when no agency can release him from a world where he has no awareness of any stimuli, nor any ability to respond and interact. The torment goes on without that all important living will that provides the critical statement: "under these conditions I refuse medical treatment, and that is to include water and nutrition." Once the resuscitation and support systems are initiated, the withdrawal of those activities is difficult. Prehospital instructions, that the orders for life support can be withdrawn is the best way to avoid being maintained in the vegetative state.

A clear national trend was developing that artificial feeding could be withdrawn from the vegetative patient if it was obvious that recovery was impossible. After 8 years the parents of Ms. Cruzan felt that was definitely the circumstances in her case and requested it. Then the Supreme Court of the State of Missouri dealt terminating artificial feeding a potent blow by refusing to authorize feeding tube removal. This decision was confirmed by the U.S. Supreme Court, concluding that there was no "clear and convincing evidence" that that is what she would want. This refusal was not withdrawn until the family accumulated sufficient testimony to persuade the courts that "clear and convincing evidence" did, in fact, exist.

This challenging predicament has come about by a relatively new phenomenon in medical practice; the "technological triumph over death." Damage to the brain often devastates it structurally and functionally, but insufficiently to meet criteria for brain death, when life support withdrawal is simpler and organ donation protocols can be put into effect.

The national publicity received by the Cruzan case

illuminated the dilemma of the vegetative patient. It has also provided the public with information about how to prepare advance directives to assure that self-determination prevails. The documents are the living will and the durable power of attorney for health-care.

Commenting on the Cruzan decision, Justice William Brennan stated that "too few people execute living wills or equivalent formal directives to assure ... their wishes will be honored." Justice Sandra Day O'Conner noted the "practical wisdom of (utilizing) such procedures." Chief Justice William Rhenquist was quoted as saying, "There is no automatic assurance that the view of close family members will necessarily be the same as the patient's would have been."

The preparation of advance directives can remove the stumbling blocks and reduce the number of families in torment. Many families are sitting beside the beds of these vegetative loved ones believing that medical science has stretched out some "living deaths" unbearably long.

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Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions.

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of non-susceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of **serum-sickness-like** reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, **serum-sickness-like** reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
- Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

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- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
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Kinder, Gentler Procedure

Dale C. Harve, M.D.
In the Journal of The Florida Medical Association
[Reprinted with permission]

My wife, Carol, had her laparoscopic cholecystectomy exactly four weeks ago today....I shall now relate how things came out—literally and otherwise.

The good news is that the patient is doing well. The operation itself proceeded smoothly, thanks to the skills of Marvin Slesh, our surgeon-friend. He wields a mean laparoscope. Carol and I watched a videotape of the procedure several days after the event. Having assisted as an intern on what seemed at the time to be a million "traditional" cholecystectomies, I must admit I am mightily impressed by this newer approach to the gallbladder. It is definitely a kinder and gentler procedure, quite in keeping with President Bush's aspirations for America.

I remember making rounds on postoperative cholecystectomy patients in the early '60s (1960s of course, and it was often an unpleasant experience. So many patients had so many complaints for so many days that I recall hoping I never had to have my gallbladder out. It was where I learned that cholecystectomy is a major operation and that it should not be entered into lightly by either patient or surgeon.

After the surgery Carol shook off her anesthetic grogginess within a few hours and quickly gathered positive physical momentum. Much to everyone's delight, especially our insurance company, and my amazement, she left the hospital the next day. With the exception of a few tender abdominal moments and her painful regret at having consumed prematurely a fast-food burger, Carol's postoperative course has gone well. She still maintains great respect for the biliary colic that plagued her before surgery and the unfortunate postoperative burger episode has made her wary of resuming any of her previously upsetting foodstuffs. Each addition to her diet that is tolerated digestively is a source of great pleasure. How grateful we become for the little things.

Carol's experience reminded me again that medical and surgical encounters are major events in a person's life. As busy physicians we sometimes forget how profoundly we affect the lives of our patients and their families. For example, there is no such thing as minor or routine surgery as far as a patient is concerned. Everything we do or say to our patients is important; even the manner in which we express ourselves, including the inflection of our voice, can mean the difference between despair and hope in a patient's mind. And families are no less sensitive to the quality of communication between themselves and the physician. Patients' families deeply appreciate those moments when the physician stops to talk with them. Although I had every confidence Carol's operation had gone well, hearing it from the surgeon was important.

Another lesson I leamed for the zillionth time in my lifetime is how valuable nurses are in the total medical picture. Every nurse we met was a gem, from the technologically disciplined artists in the operating suite to the saints in the recovery room. The night nurse on the surgery floor was compassion incamate. Nothing beats a good nurse—nothing, not even Midas.

Surely, you say, there must have been some unpleasantness associated with the surgical experience. Yes, there was. Mainly it involved dealing with the third-party bureaucracies and the plethora of paperwork that an ovemight stay in the hospital generated. The medical bureaucracy itself can be intimidating and confusing. I feel sorry for patients who try to cope with all the paperwork without any medical background. It doesn't surprise me that so many people, out of sheer frustration, are willing to throw out a healthy medical baby with the bureaucratically tainted bathwater. And no matter whether you leave your heart in San Francisco or your gallbladder in Cleveland, that would be a shame.

Targeting Professions for Antitrust Prosecution: Perception or Reality?

Kathleen E. McDermott
*In 'Antitrust' Magazine**

Doctors, dentists, architects, lawyers, and other professionals may read an ominous message in the recent increased government activity directed at their activities. Some headlines:

- The Justice Department issues a ' stern warning" to the nation's doctors that they are under surveillance for evidence of price fixing . . . the head of the Antitrust Division warns doctors: "You can go to jail."
- Three grand juries are convened to investigate alleged price-fixing by dentists in Tucson, allergists in Boston, and obstetricians in Savannah; all three investigations were referred by the Federal Trade Commission.
- The Antitrust Division undertakes a major investigation of possible collusion on tuition fees and financial aid by the nation's leading colleges and universities.
- The Division files an antitrust case against the American Institute of Architects, alleging a nationwide conspiracy to eliminate competitive bidding and fee discounting, and obtains a consent decree affecting the AIA's 54,000 members and its 284 local and state chapters.
- The Federal Trade Commission reportedly opens an investigation of collusion among prominent law firms to eliminate competition by capping recruiting expenses.
- The Department obtains a criminal indictment and five convictions in the Tucson dentists case.

An apparent increase in government antitrust activity directed at professionals is sure to shake up some professionals inclined to complacency. But how should these intitiatives be interpreted? Do they signal a new focus for the antitrust enforcers? And are they in fact a deliberate targeting of professionals for antitrust scrutiny and, in particular, for criminal enforcement?

Antitrust enforcers at the Antitrust Division and the FTC deny that there is a campaign underway against professionals. Instead, say those enforcers primarily responsible for this area, the message to be derived from current enforcement initiatives is simply that professionals enjoy no special status under the antitrust laws. That makes them and their organizations fair targets for antitrust enforcement, with criminal prosecution a real possibility for hard-core violations.

Despite occasional rumors of turf battles and differences in enforcement approach between the FTC and the Antitrust Division, the bad news—at least for professionals who might foolishly believe they are exempt from antitrust concerns—is that harmony among the agency enforcers reigns supreme in this field. The three federal government lawyers who oversee the professions share remarkably uniform enforcement philosophies.

Mark Horoschak and Michael McNeely at the Federal Trade Commission, and Robert Bloch at the Department of Justice Antitrust Division, all echo the same theme: there is no special scrutiny of professionals. But neither will there be special treatment. They believe the broad impact on the economy of professional activities is so significant that spending resources on criminal referrals and prosecution is warranted whenever investigations uncover evidence of naked restraints on competition.

The Enforcers

Antitrust oversight of the professions is spread out among one section at the Antitrust Division and two "shops" at the FTC. All three chiefs, however, attest to a close working relationship that prevents duplication of effort and reduces the likelihood of any important differences in enforcement approach.

*Published by the American Bar Association, Section of Antitrust Law, Copyright© 1990 American Bar Association. Reprinted with permission of ABA and author. Kathleen E. McDermott, Features Editor of *ANTITRUST* is a partner in Collier, Shannon & Scott in Washington, DC, where she specializes in antitrust and consumer protection law. She served as Chair of the Antitrust Section's Federal Commission Committee for three years.

Robert E. Bloch became head of the Professions and Intellectual Property Section at the Antitrust Division in January 1988 after serving as Assistant Chief in the Litigation I and Trial Sections and as a senior trial attorney at the Division. Bloch has a staff of 25 attorneys responsible for, among other things, the investigation and prosecution of civil and criminal antitrust violations involving professions, including health care, the law, colleges and universities, professional sports, publishing, and accounting. Recently, he was lead trial counsel in the govemment's criminal case against three dentists in Tucson convicted of conspiring with others to raise prices by raising copayments on certain dental services.

Bloch is adamant in his view that neither health care nor other professionals can claim ignorance of the fact that their practices may subject them to criminal antitrust enforcement, considering that "both the Antitrust Division and the Federal Trade Commission . . . have put substantial resources into enforcing the antitrust laws [in this area] over several decades." In addition, he believes that ample notice has been given to professionals of their vulnerability to prosecution for "price-fixing, naked boycotts, and market allocation schemes."

Mark Horoschak is the Assistant Director for Health Care for the FTC's Bureau of Competition, a post he has held since September 1989. With a staff of 29 professionals, his office investigates and litigates practices affecting competition in all aspects of health care (with the exception of pharmacy). Horoschak previously served as an Executive Assistant and Attorney Advisor to former Commission Chairman Daniel Oliver and as the Commission's Assistant General Counsel for Legal Counsel.

Horoschak stresses the close working relationship that has developed between his and Bob Bloch's office, noting that he tries hard to accommodate the Antitrust Division's interest in criminal matters. He warns that professionals should not assume they are safe from criminal prosecution simply because it is the Commission that initially investigates a matter.

Michael McNeely, Assistant Director for Licensed Occupations at the FTC's Bureau of Competition since March 1988, oversees antitrust matters involving pharmacists and all non-health care professions except real estate. Close cooperation with the Department of Justice is also a hallmark of McNeely's antitrust enforcement activities, and comes naturally to him.

From 1976 until 1988 he was a trial attorney in the Antitrust Division where his policy planning and litigation activities included a supervisory role on the government's trial staff in *United States v. AT&T.* McNeely agrees with Section Chief Bloch's assessment that the current level of enforcement activity against professionals should be cause for neither alarm nor surprise. The professions, he believes, should have been on notice "for a long time" that criminal prosecution is a real possibility for those, including professionals, who engage in collusion on prices and boycotts designed to eliminate innovative forms of competition.

Criminal Referral

According to McNeely, the possibility of criminal referral to the Division is "something [he] considers all the time" in connection with his office's investigations. Criminal referral from the FTC is not a rigid, formalized process, explains Assistant Director Horoschak, because of the close working relationship that has developed between the agencies. Every investigation that the Commission undertakes is "cleared" with the Antitrust Division at the "initial" or "first phase formal" stage, during which the Division can request to undertake the investigation itself.

Determining which agency will investigate is based on considerations other than potential fitness of the matter for criminal prosecution. One agency may request the other to clear a matter to it on the grounds that it has more expertise in a particular industry or with a particular company, or because it is investigating a related matter.

Three outcomes are possible at this initial stage. First, the matter could be cleared for the Commission to proceed civilly. Second, the Division could clear it to the Commission but with a "criminal caveat" on it, meaning that, if the investigation unearths evidence of what could be characterized as criminal behavior the Division reserves the right to request that the matter be referred to it. Finally, the matter could be cleared to the Antitrust Division at the outset.

Even without a "criminal caveat," Horoschak cautions, the Commission staff may informally discuss with Bloch's staff possible Division interest, or may decide on their own to refer a matter to the Division for review. This could occur early on, or even in the latest stages of an investigation. "We try very hard to avoid disparate treatment of persons or practices, based on which agency happens to handle the initial investigation," explains Horoschak.

Horoschak and McNeely say there are no circum-

stances, such as considerations of remedy, that would cause them to keep a matter that might be suitable for criminal prosecution, despite what they acknowledge is the lawyer's natural desire to hold onto good cases and try them.

Both the Commission and the Division enforcers say they employ the same standards in deciding whether a matter is fit for criminal referral and/or prosecution, and those standards are no different for professionals than for members of any other industry. "We do not apply different standards for professionals," Bloch emphasizes, "not in our evaluation, the amount of evidence we require to prosecute, or the type of proof." The standards the Division applies to all industries are set forth in the Antitrust Division Manual .

Bloch stresses that he has taken particular pains to explain the basic considerations that go into Division decisionmaking, particularly with respect to health care providers, one group that has been the subject of recent much-publicized grand jury investigations. He illustrated some of the types of activities that can leave competing doctors open to criminal investigation in a speech given in November 1989. (See box.)

Bloch acknowledges that sensitivity for the context in which joint activity by professionals occurs is necessary, but ultimately, he insists, the analytical approach is basically the same one that applies to other joint ventures. This means that there must be some degree of integration to take the activity out of the per se (and thus potentially criminal) area and into the rule of reason arena.

With respect to health care joint ventures, the Division is well aware that new forms of competition are evolving, and is trying not to discourage them. Thus, the question frequently becomes not "how much integration is enough," but "how little" will save an agreement from per se treatment.

Although he has described in speeches many indicia of integrated joint provider agreements, such as risk sharing, centralized billing, utilization review, peer review, and independent marketing, Bloch is reluctant to try to specify which are essential or how they should be weighted. For Bloch it is enough to say that without any of these or similar hallmarks of integration, what is left is naked, criminal price-fixing.

Elizabeth Gee, who ran the Commission's health care shop from 1985 to 1989, confirms that the Antitrust Division's analysis generally parallels the one used by the FTC for criminal referral. During her tenure, for a case to be referred for criminal enforcement, a practice had to be "naked," a term she views as more descriptive than per se. Her staff would refer matters when there were no new issues involved, no form of agreement that could have an explanation other than an anticompetitive one.

Current Assistant Director for Licensed Occupations Mike McNeely disagrees with those who sometimes cite the openness or notoriousness of a practice as a reason for proceeding civilly. Instead, he suggests, "open, notorious behavior may be essential to the success of some naked restraints, such as boycotts." At the Antitrust Division Bob Bloch shares this view, "particularly in situations where groups of providers acting collectively must communicate their demands to a third party in order for the potential effect of the threatened conduct to be recognized."

The Past

Given the apparent harmony of the two agencies on the criminal prosecution of professionals for naked restraints, the obvious question arises: Why was there such a dearth of criminal prosecutions between the 1943 decision in *AMA v. United States*, 317 U.S. 519 (1943) (holding a physicians' boycott to be a restraint of trade under the Sherman Act) and 1990, when the Tucson dentists were indicted? And, why is there so much interest in the professions now?

All three enforcement heads are united in their denial that a period of conscious neglect is being followed by overzealous pursuit of professionals. What is at work, they say, is a result of a process of evolution of the law, and of the nature of competition in the professions.

FTC enforcers believe the lack of criminal cases for many years may be primarily attributable to questions about the application of the antitrust laws to the "learned professions" that respondents persisted in raising even after the Supreme Court's decision in *Goldfarb v. Virginia State Bar*, 421 U.S. 773, 787 (1975). In Elizabeth Gee's view, respondents did not acknowledge that the issue was settled until the Commission's 1984 decision in *AMI* (104 F.T.C. I (1984), order modified, 107 F.T.C. 310 (1986)).

There were also lingering questions about the appropriateness of applying the per se standard in novel settings which, FTC enforcers say, matters involving health care professionals frequently presented. And there was concern among Commission attorneys that certain professional groups, especially in the health care field, were slow to understand that their activities could be considered civil, much less criminal, violations of the antitrust laws.

At the Antitrust Division, Bob Bloch disagrees that any profession has had cause to claim ignorance of the law since *AMA*. In his opinion, "the medical profession has had a studied resistance to competition throughout this century; with the caselaw on the books and the quality of counseling available, there is no longer any sense in a claim of ignorance of the antitrust laws. Tucson should make that clear."

Mark Horoschak's view is that with the jurisdictional issues resolved, and with the anticompetitive nature of certain activities refined, it became appropriate in recent years to "raise the stakes" for antitrust violations by professionals. In his view, current criminal enforcement by the Antitrust Division is right on course, with the Division proceeding "very prudently."

The Future

Officials at every level of the Justice Department have indicated that more widespread criminal enforcement will be the hallmark of this Administration. And both FTC enforcement chiefs note that the Commission's enforcement program combined with DOJ criminal enforcement appear to be working to limit anticompetitive behavior in the professions. Mike McNeely also cites as helpful the increased cooperation with the states, as the state attorneys general and state boards and licensing agencies become more attuned to FTC and DOJ concerns about the professions.

Mark Horoschak is not yet ready to declare victory and close up shop. Just as there has been an evolution in antitrust law enforcement, there has been and will continue to be an evolution in forms of health care delivery and in reactions to them.

Horoschak remarks that restraints that were "hot" enforcement areas five years ago, such as conspiracies to block HMOs, are no longer prevalent. Newer formats, such as hospital networks of various sorts, are arising to be scrutinized. In the meantime, he observes, "we're seeing fewer and fewer naked restraints . . . the message does seem to be getting across, which is very encouraging to a federal law

Warning: Danger Zone

In a speech to the 23rd Annual New England Antitrust Conference, November 1989, Robert Bloch, Chief of the Professions and Intellectual Property Section of the Antitrust Division, listed some specific examples of per se illegal activities by doctors:

- "If two or more local doctors in the same specialty, but with independent practices, agree to raise their fees to patients or third-party payers, they are engaging in price fixing. The same would be true if those doctors agreed not to reduce their fees or to give a discount to patients or a particular third-party payer, or if they agreed simply to limit the discount they would give...."

- "...competing providers who agree through their specialty society or other ad hoc group to develop a fee schedule for use in negotiations with HMOs are engaged in price fixing. Or, they might take a united front against HMOs during negotiations on fee reimbursement issues and use a variety of other techniques to pressure third-party plans to raise fee reimbursements.... Such concerted conduct is nothing more than activity among competitors to implement an unlawful pricefixing agreement."

- "If a group of competing doctors in a town agree to try to stop or impede the development of new HMOs and PPOs by retaliating against competitors who do provide services to such organizations, or by agreeing to prevent providers seeking to service such organizations from obtaining the necessary hospital staff or other privileges they need to do so, we will investigate these activities criminally."

- ". . . [a] situation where independent providers collectively take steps outside the scope of a PPO or IPA to negotiate reimbursement rates with third-party payers or resist competitive pressures to discount fees. For example, they might jointly refuse to negotiate a contract with a provider-controlled HMO on an individual basis after an impasse is reached by their usual IPA bargaining agent where the purpose underlying the concerted refusal is to take a united front against the HMO. This conduct is clearly designed to implement an unlawful price-fixing agreement."

Functional Endoscopic Sinus Surgery: A Brief Review

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Mitchell A. Austin, M.D.†
*Jack P. Kotlarz, M.D.***

Abstract

As a rule, functional endoscopic sinus surgery (FESS) is recommended for patients with chronic sinus problems that do not respond to medical treatment. For discussion of the surgical treatment to be useful we must first look at the importance of sinusitis, the medical diagnosis and treatment of sinusitis, the anatomic and pathologic considerations for the surgical treatment of sinusitis, the modern diagnosis of recurrent or persistent sinusitis and lastly, the surgical technique of functional endoscopic sinus surgery.

Introduction

Recent information indicates that sinusitis affects over thirty million people and is the most prevalent medical affliction of ambulatory people in the Unites States and that it is more prevalent than osteoarthritis or hypertension.[1]

Functional Endoscopic Sinus Surgery (FESS) has been introduced in Europe by Messerklinger[2], Wigand[3] and Stammberger[4] and has been popularized in the United States by Kennedy[5] and Gross[6].

Sinusitis, or sinus disease, is one of the most common conditions treated by primary care physicians and Otorhinolaryngologists/Head and Neck Surgeons. To diagnose acute sinusitis the physician must consider strongly the nasal symptoms and signs of nasal blockage, paranasal headaches, postnasal drainage and fever. These symptoms and signs and the additional history of eye symptoms, ear symptoms, laryngeal symptoms and lung symptoms may be present with chronic sinusitis. Furthermore, we must realize that all of these symptoms may occur in the absence of a clearly demonstrated sinus problem. Therefore, the diagnosis of sinusitis in a patient must be based on the assessment by the patient's physician.

In most people sinus problems can be treated successfully medically and surgery is not indicated. The medical treatment may consist of antibiotics or other medications for the treatment of allergies or the control of environmental irritants of the nose, such as cigarette smoke and smog. The type of medical treatment is determined by the doctor's evaluation of the patient.

Sometimes, however, surgery is required because the medical treatment is not successful due to an infected or inflamed area in the sinuses that does not clear up with antibiotic treatment, that continues to reappear when antibiotics are stopped, or for other reasons that should be explained to a patient by their physician.

Anatomic and Pathophysiologic Considerations for Surgical Treatment of Sinusitis

The surgical considerations for the treatment of sinusitis center around the anatomy of the nose and sinuses and alterations in the normal physiology of the nose and sinuses.

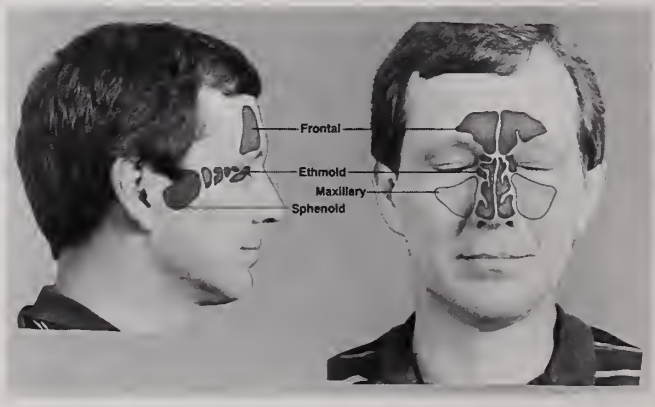

Figure 1. Basic anatomy of the nose and paranasal sinuses with the maxillary sinuses beside the nose, the frontal sinus over the nose, the ethmoid sinuses in the nose and the sphenoid sinuses behind and in back of the nose. These sinuses connect to the nose through small ostia or narrow channels.

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Anatomically, the nose and paranasal sinuses are closely placed and interconnected. The maxillary sinuses are placed beside the nose, the frontal sinuses are placed above the nose, the ethmoid sinuses are placed inside the nose and the sphenoid sinuses are placed in and behind the nose (Fig. 1). The sinuses are also connected normally to the nose through tiny openings, ostia. In the anterior middle meatus area of the nose there is a potential bottleneck for blockage because the maxillary sinuses, frontal sinuses and anterior ethmoid sinuses connect to this area through their narrow channels, or ostia. These ostia can be blocked easily by swollen mucous membrane and this ostial blockage can lead to disease of the anterior ethmoid, maxillary and frontal sinuses. Disease in these sinuses can also contribute to the establishment of posterior ethmoid and sphenoid sinusitis. This area is referred to as the osteomeatal complex (OMC), the area of the nose where the ostia of the ethmoid, maxillary and frontal sinuses drain into the middle meatus (Fig. 2).

Physiologically, the nose and paranasal sinuses are coated with a blanket of mucous. This blanket normally flows in a way that cleans out the nose and sinuses every ten to fifteen minutes, and this clearing out is referred to as mucociliary clearance. The main alteration in the normal physiology of the nose is a breakdown in mucociliary clearance that can lead to sinusitis because the mucosa of the nose and sinuses has decreased protection and may become swollen and block the narrow channels of the OMC. Breakdowns can be caused by environmental irritants, viruses, allergens, bacteria, fungi, congenital abnormalities such as cystic fibrosis and immotile cilia syndrome in children and anatomic variations due to congenital problems, abnormal growth developments or trauma (Fig.3).

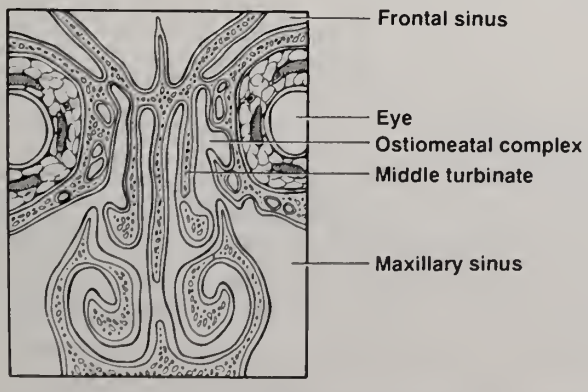

Figure 2. Concept of ostiomeatal unit - the area of the nose where the ostia of the ethmoid, maxillary and frontal sinuses drain into the middle meatus of the nose.

Usually medical treatment can relieve the blockage in this area by decreasing the swelling of the mucous membrane; however, FESS is being required increasingly to open up these channels when sinusitis persists or is recurrent despite repeated antibiotic and other medical treatment.

Technological Advances in the Diagnosis of Sinusitis

Two significant technological improvements now aid the diagnosis of acute rhinosinusitis with complications, recurrent sinusitis and chronic sinusitis. These improvements are new endoscopes for the examination of the nose and sinuses and new protocols for CT scanning of the nose and sinuses. Endoscopes enable sinus surgeons to better view the nasal and OMC area and to even look around corners in this area. The CT scan techniques utilize special magnification and windows in order to view changes in the thin septae and mucosa of the ethmoid sinuses. Using these two technological advances sinus surgeons can now diagnose and treat sinus conditions in ways not previously known.

The Surgical Technique of FESS

With FESS an effort is made to restore normal aeration and mucociliary clearance of the sinuses by bringing the mucous membrane function as close as possible to normal. The procedure drains the OMC area. During the procedure and using endoscopes to see the area surgeons can open up the bottleneck area, the OMC, created by the narrow channels of the middle meatus and the ostia of the sinuses and remove

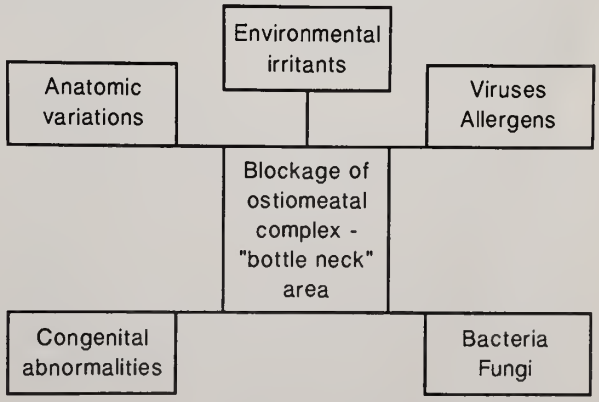

Figure 3. Illustration notes the factors contributing to the pathophysiologic changes in the sinuses - from top and center and going clockwise note environmental irritants, viruses, allergens, bacteria, fungi, congenital abnormalities including cystic fibrosis and immotile cilia syndrome in children, and anatomic variations that may be due to congenital problems, abnormal growth developments or trauma.

swollen and inflamed mucous membrane that may block these narrow channels. While accomplishing this drainage procedure, we remove the least amount of tissue and bone possible in order to leave as much of these valuable nasal structures as is possible.

We perform the procedure in the operating room in our hospital. The operation may be done under general or local anesthesia. Vasoconstriction of the mucous membrane is accomplished with topical neosynephrine and with injected adrenalin mixed with lidocaine. The operation focuses on the anterior ethmoid sinus area but during the procedure, in selected patients, an obstructing deviated septum can be corrected or an indicated functional rhinoplasty can be performed. Throughout the operation endoscopic findings are correlated closely with the CT scan of the nose and sinuses.

Our surgical technique seeks to limit the minor complications and to avoid the major complications associated with this surgery. Minor complications include bleeding that may require temporary packir:g. Major complications reported elsewhere in this country and the world include orbital complications of blindness and impaired extraocular muscle function, and central nervous system complications of meningitis, brain tissue trauma and cerebrospinal fluid leaks.

In children surgical treatment is used only for those patients for whom maximal prolonged medical therapy has failed and FESS may not be considered yet the first choice for treatment in children. In the young child an adenoidectomy (with or without tonsillectomy) and inferior meatus antrostomy are frequently the initial surgical procedures; however, FESS utilizing the endoscopes is rapidly becoming an important surgical approach in children.

In adults along with children surgical treatment is reserved only for patients in whom maximal prolonged medical treatment has failed. Adults, and sometimes children, may still derive benefit from the traditional surgical methods that include intranasal and extranasal approaches for maxillary sinusitis, other internal and external approaches for ethmoid sinusitis, trephine and obliteration approaches for frontal sinusitis and transseptal and transethmoidal approaches for sphenoid sinusitis.

Discussion

The incidence of sinus disease is increasing. We believe FESS adds another tool to our armamentarium for treatment. With FESS there is an emphasis made to precisely tailor the treatment to the extent of the disease. This goal allows a return of nasal function to as near normal as possible with normal sinus aeration and with normal mucociliary clearance. It is always strongly emphasized that FESS should be used only after sustained medical treatment and other surgical procedures have not been successful.

FESS has been shown to be a safe and effective method for the treatment of sinusitis. A study by Kennedy indicated in a review of 95 of these ethmoid sinus procedures that 92 percent of the patients were improved or asymptomatic on endoscopic follow-up of four months or longer (a mean of nine months).[7] Findings in a series by Gross of 57 children treated with this surgery for sinus disease reported no major complications.[8]

Conclusion

Functional endoscopic sinus surgery (FESS) is a safe and effective method for treatment of chronic sinusitis; however, the potential hazards of bleeding, orbital and brain tissue damage as complications of operations in the ethmoid area are well known to all sinus surgeons. We believe that it is imperative that FESS be performed by surgeons experienced in this technique and who regularly deal with patients with sinusitis.

It should be stressed that vasoconstriction of the mucous membrane is important to provide additional adequate visualization and to prevent bleeding. It is also important to provide proper post-operative care for our patients because many of them will return to their same indoor and outdoor environments.

For the future we at UAB are presently conducting a detailed study of our FESS patients in order to follow and evaluate the outcomes of this procedure.[9]

Acknowledgment

A special thanks to Mrs. Vicki Noles for preparation of the manuscript.

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'That We Might Learn...'

James A. Pittman, Jr., M.D.
Dean, University of Alabama School of Medicine

§Dean Pittman made these remarks on the occasion of a "Memorial Service in Honor, Memory, and Gratitude to Those Who Gave Their Bodies That We Might Learn Human Anatomy," in the Great Hall, Student Center, University of Alabama School of Medicine, Birmingham, Jan. 3, 1991.—Ed.

We are gathered here today voluntarily—this is not a required class or exercise or lab—to commemorate, honor, and thank those people who have made a truly *unique* contribution to our medical education and knowledge. They have given their physical bodies for our use, to dissect, examine, re-examine, study, and ultimately to learn. Without their contribution, this would not be possible except in abstraction.

We are in this regard highly privileged among scholars. Most people who have studied medicine over the years, decades, and centuries have not had this privilege. It is only over the past 400 years or so that physicians have had access to this information. The dissection of human bodies was prohibited by law, and very severe punishment (including sometimes even execution) was the penalty for dissecting a human body.

There is an ancient Egyptian papyrus by someone named Manetho. Manetho says that Athothis, son of Menes the founder of the First Dynasty, about 4,000 years before the Christian era (or 6,000 years ago), "was a physician and wrote books on medicine, the first of which treated of anatomy and dissection of the human body." However, a fanatical religious respect for the body soon developed in ancient Egypt and persisted until the Italian Renaissance in the 15th Century A.D.

Furthermore, the description of anatomical knowledge by Athothis, available in the Berlin Medical Papyrus, is most disappointing to read, consisting largely of counts of blood vessels (or other things called "vessels") and speculations such as, "There are two vessels in the right ear, through which the breath of life enters, and two in the left ear, through which the breath of death enters."

Neither Hippocrates (about 400 B.C.) nor Aristotle (350 B.C.) is known to have dissected a human body or to have observed the inner structure of the body, though Aristotle probably studied animal anatomy. There was a Greek medical school in Alexandria around 300 B.C., and there were two famous teachers there who apparently taught anatomy they learned from dissecting human bodies for the study of diseases—Herophilus and Erasistratus.

But, for the most part, dissection of human bodies was strictly forbidden. In ancient Egypt there was such severe proscription against touching a dead body that the job of embalming bodies was allocated to the lowest, meanest, least-respected members of society, and they did not communicate with the physicians, who thus were deprived of any knowledge which might come from the embalming.

It was Galen, the Greek physician who became physician for the Roman Emperor Marcus Aurelius around 170 A.D., who dissected animals—particularly the Barbary ape—who set the stage for human anatomy for some 1400 years. Since Roman law strictly forbade human dissection, Galen's descriptions are really guesses and extrapolations based on his animal dissections. However, Galen had been born in the Greek area of western Turkey of Pergamum, where there was a temple to the healing god Asklepios, and an attached medical school. He became physician to. the gladiators there, where he may have learned some human anatomy. Later, however, Galen's only human observations were clinical, and they were very detailed—for example, he wrote 16 books on the *pulse*!

The lack of anatomic knowledge led to speculations about physiology and body function that now seem odd or ludicrous to us. Even Aristotle believed that the heart, not the brain, was the focal point for sensations arriving from the external world (though Plato said the brain). The practice of *surgery*, however, was necessitated by trauma and war, as well as disease; and that provided some detailed anatomical knowledge—particularly evident in the writings of the Arab physicians Rhazes and Avicenna (around 1,000 A.D.). For example, Abulcasis, a Moslem in Cordoba, Spain, also around 1000 A.D., did surgery and described the six extraocular muscles of the eye. However, again, Islamic law strictly prohibited human dissections.

The first *public* dissections of human bodies

occurred in Bologna, Italy, in 1315, where they were done by Mondino dei Liucci. This heralded the birth of modern anatomical knowledge and was followed by dissections by the artist Michaelangelo (around 1500 A.D.) and the polymath Leonardo da Vinci (around 1475 A.D.), culminating with the publication in 1543 of *De Humani Corporis Fabrica* by Andreas Vesalius.

This was a major turning point in the history of the study of human anatomy, and we are fortunate to have an original copy of this publication in the Reynolds Historical Library here at UAB. Vesalius, who was born in Brussels, Belgium, was working in northern Italy at the time, at Bologna, Padua, and Venice. The drawings to illustrate his text were done in Venice in 1542, probably in the studio of the great renaissance artist Titian, and the wood-block printing was done in Basel, Switzerland, in 1543. Although Vesalius accepted the physiology of Galen, his very careful anatomical descriptions opened the way for extensive questioning and revisions of that system.

I once visited the medical school in Padua (which still operates as a medical school), and I saw preserved there the very amphitheater where the human dissections were demonstrated. Apparently, it still was not entirely safe, since they had a system for the rapid lowering of the dissecting table through the floor into a lower floor, so the demonstrator could continue with a lecture alone, without the incriminating body in evidence.

There followed in Northern Italy a flowering of anatomical discoveries by men with names now associated with human structures—Fallopia, Fabricius, Bartolomeo Eustachius, Realdo Columbo (who described the pulmonary circulation before Harvey), and William Harvey himself, who as a student at Padua in 1628 described the general circulation of the blood. (And one of the very few existing original copies of his book, in Latin, is also held by the Reynolds Historical Library.)

Thus, only after anatomy became accurate was separation of physiology as a discipline in its own right possible.

In those days it was largely prisoners, criminals, people executed, or vagrants whose bodies were used for dissections. (Although Pope Clement VI in 1348, at the height of the plague in Europe, ordered the bodies of the victims autopsied by his physician Guy de Chauliac.) In the early days of this country, the same applied, but bodies were difficult to obtain, and grave robbing for that purpose was a lucrative profession.

Nowadays the bodies are voluntarily contributed, either by the dying person himself, by his family or guardians. And I understand that every one of these bodies you have studied so diligently was voluntarily contributed. None was simply unclaimed. Thus, we do owe these people a genuine debt of gratitude for what they have given us to help in our education.

There has always been throughout history a discussion of the relation of the body to the mind and to the spirit, or soul. One hears debates, such as that recorded by Paul in the 15th chapter of First Corinthians, where he is discussing the Christian belief in resurrection of the body (which belief, we tend to forget, was first held by the Jews). He might be talking to a group of skeptical medical students, who had just said something like: "Resurrection? What, of a body riddled with cancer when it died? Or of a body bedeviled by an arrhythmia, to reawaken only to have the arrhythmia resume?"

Well, it is not my place here to enter into that debate, except to say that the good physician must be aware of and sympathetic to all points of view, while holding fast to his or her own beliefs and values. And he must have an adequate appreciation of the importance of spirit, outlook, values, attitudes, and beliefs in the life and health of each of his individual patients.

However, the one thing which we must strive hardest to understand as students of medicine, and to understand as deeply and thoroughly as possible, is the *body*, which carries all this around and is the vehicle for us in this earthly existence. I would like to close with two quotations which are available to you in a small book published by UAB titled *The Quiet Art.*

The first is by Dr. Peter Latham, the English physician, who said in 1836:

"This body must be your study, and your continual care—your active, willing, earnest care. Nothing must make you shrink from it. In its weakness and infirmities, in the dishonours of its corruption, you must still value it—still stay by it—to mark its hunger and thirst, its sleeping and waking, its heat and cold; to hear its complaints, to register its groans. And is it possible to feel an interest in all of this? Ay, indeed it is; a greater, far greater interest than ever a painter or sculptor took in the beauties of its health.

"Whence comes this interest? At first, perhaps it seldom comes naturally: A mere sense of duty must engender it; and still, for a while, a mere sense of duty must keep it alive. Presently, the quick, curious, restless spirit of science enlivens it; and then it becomes an excitement, and then a pleasure, and then

the deliberate choice of the mind.

"When the interest of attending the sick has reached this point, then arises from it, or has already risen, a ready discernment of diseases, and a skill in the use of remedies. And the skill may exalt the interest, and the interest may improve the skill, until, in process of time, experience forms the consummate practitioner.

"Does the interest of attending the sick stop here: The question may seem strange. If it has led to the readiest discernment, and the highest skill, and formed the consummate practitioner, why need it go further?

"But what if humanity shall warm it? Then this interest, this excitement, this intellectual pleasure, Is exalted into a principle, and invested with a moral motive, and passes into the heart. What if it be carried still further? What if religion should animate it? Why, then happy indeed is that man whose mind, whose moral nature, and whose spiritual being, are all harmoniously engaged in the daily business of his life; with whom the same act has become his own happiness, a dispensation of mercy to his fellow-creatures, and a worship of God.

"Such a man (or woman) any of you may be; but you must begin by learning to stand by the sick bed and make it your delight."

And finally is one from our own Tinsley Harrison. It has to do with who these people were, who have given us their bodies. We do not know who they were (or should not know). We know only that they were living, breathing, feeling persons, just like us. Dr. Harrison said:

"Tact, sympathy, and understanding are expected of the physician, for the patient is no mere collection of symptoms, signs, disordered functions, damaged organs, and disturbed emotions. He is human, fearful, and hopeful, seeking relief, help, and reassurance. To the physician, as to the anthropologist, nothing human is strange or repulsive. The misanthrope may become a smart diagnostician of organic disease, but he can scarcely hope to succeed as a physician. The true physician has a Shakespearean breadth of interest in the wise and the foolish, the proud and the humble, the stoic hero and the shining rogue. He cares for people."

Mrs. Charles Patterson
A-MASA, President

The Rest of the Star Story

This month I will continue to highlight some of our county auxiliary programs and introduce you to the leaders who work diligently to coordinate their volunteers and to make plans become reality within their communities.

Programs sponsored by the MADISON County Auxiliary this year include a new health project, the Mamm Exam, a continuation of the Organ Donor Program in the high schools, support of the CPR program at Huntsville Hospital, and funding of several health scholarships to be awarded in the spring.

In order to underwrite these community projects, the auxiliary has sold gift wrap and planned another exciting fashion show to be held in late February. President Carla King and AMA-ERF chairman Linda Maccubbin produced another very successful sharing card for the holiday season.

The MARSHALL County Auxiliary is preparing a permanent display of local medical history for the new Chamber of Commerce building in Guntersville. Our state organization is encouraging each county auxiliary to research and document some phase of its medical history and share it with their own community. President Liz Riehl has led this reorganized auxiliary in this medical heritage project.

Birthday greetings are in order for the MOBILE County Auxiliary which is celebrating 60 years of service to its medical society and community this year. Linda Hall is president of this large group of enthusiastic auxilians. Camp Rap A Hope, established in 1985, and Adopt A School-Chickasaw Elementary continue to be the two main projects supported by this group. This year Camp RAP A HOPE was awarded the George Washington Honor Medal by the Mobile Chapter of Freedoms Foundation at Valley Forge for its work with children suffering from cancer. The Chickasaw School project was presented in the January issue of *Facets* magazine published by the American Medical Association Auxiliary.

In the fall a total of $10,000 was distributed to the following agencies in the Mobile area: Penelope House, the Exploreum, the Child Advocacy Center, the Mobile Public Library, Mobile's Association of Retarded Citizens, and Senior Citizen Services.

The MONTGOMERY-AUTAUGA Auxiliary has been actively supporting AMA-ERF this year through the promotion of the holiday sharing card and the sale of "I Love My Doctor" t-shirts, holiday gift wrap, and camellia note cards. The camellia cards, a state AMA-ERF project supported by MASA, were designed by Edna Rosen, a member of this auxiliary. Usha Bhuta and her hard-working board members are developing a health project focusing on teenage pregnancy and are continuing to support a mammography project initiated last year.

Elizabeth Chandler and the MORGAN-LAWRENCE Auxiliary members have contributed to a program that aided underprivileged children, the holiday AMA-ERF sharing card, and a scholarship for a student entering a health related career.

Although the PICKENS County Auxiliary has a small membership, it meets regularly and actively supports AMA-ERF, Doctor' Day, and a health project each year. Under the guidance of President Debbie Gentry it is currently furnishing a room for children at the hospital in Carrollton.

President Dean Walburn and the members of the TUSCALOOSA-HALE County Auxiliary restructured the ad committee for their community calendar

distributed annually during their fashion show, and raised over $17,000 in ad sales for the support of local projects.

These funds will be awarded to the Tuscaloosa Children's Center (for abused children), the Tuscaloosa Public Library (for the purchase of health-related books), and the elementary school adopted by the local medical society. Following a successful Teen Pregnancy Symposium sponsored by the auxiliary last spring, a coalition is currently exploring the possibility of publishing a directory related to adolescent health needs.

In January this auxiliary hosted the A-MASA Winter Board Meeting which was organized by Pat Snow, chairman, with assistance from Joy Nunn, Jean Lumpkin, Lisa Sanford, Pamela Montel, Judy Simpson, Carolyn Fritz, and President-elect Mary Helen Posey.

Area guest speakers for this state meeting included Dr. Susan Griffith, Gene Stallings, head football coach of the University of Alabama, T. Riley Lumpkin, M.D., MASA President, and Linda Olivett, author of *Fitting It Altogether.*

Judy Pinson is serving as president of the TALLADEGA County Auxiliary which has provided support for AMA-ERF, foster children through the Department of Human Resources, and a nursing scholarship to be awarded on Doctors' Day.

President Tracey Bush reported the the WALKER County Auxiliary members continue to be very actively involved in the RIF (Reading is Fundamental) Program. Another school was added to the program this year, bringing the total to four schools (K-3 grade), supported by the auxiliary.

"For those of you who haven't worked with the auxiliary in recent years, the first thing you should realize is that it's not the same organization it was a few years ago," AMA Auxiliary President Norma Skoglund told delegates at the AMA Interim Meeting, Dec. 2-5, 1990, Orlando, Florida. "Auxiliary members in the 1990s are more visible and more involved, more professional and more knowledgeable, and thus, more capable of making an impact on the issues that matter."

The programs and projects briefly discussed in these two "star" articles indicate that our Alabama auxilians exhibit all of the characteristics mentioned above and are making a firm commitment each year to improve the health and well being of the citizens of our state. Auxiliary members are always ready to help the medical societies.

Call on us and we will work with you to Make a Difference!

INFORMATION FOR AUTHORS CONCERNING MANUSCRIPTS

Manuscripts from member physicians should be typewritten, double spaced on white paper 81/2 x 11 inches with adequate margins. Two copies should be submitted. Authority for approval of all contributions rests with the Editor. *Alabama Medicine* reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

Style: The first page should list title (please be brief), the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain, in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

The Stylebook/Editorial Manual, published by the AMA, is the general reference for questions of style. It is particularly useful in the proper presentation of data. When conflicts occur between usage, etc., by an author and the stylebook, these will be resolved in favor of the author if his method is persuasive and logical.

Helpful to many writers is *The Elements of Style* by William Strunk, Jr., and E.B. White, which emphasizes brevity, vigor and clarity.

Final authority on grammar is Webster's *New International*, Unabridged, Second Edition.

Length of Articles: Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

Illustrations: Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink on white paper. For photographs, glossy prints are preferred.

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MASA

A LOOK AT YOUR ASSOCIATION

For more than 116 years, the Medical Association of the State of Alabama has served the physicians of this state in the legislative, educational and public arenas. A professional staff of 9, backed by 14 support personnel, works to enhance the image of medicine, to represent the interests of physicians in the legislature, and to assist members in a variety of meaningful and beneficial ways. Here is a partial listing of some of the programs and services of your association:

MASA Third Party Grievance Task Force – works with third parties, such as Blue Cross & Blue Shield and AQAF, to resolve problems commonly experienced by physicians. In less than a year the Task Force has achieved substantial resolution of problems, examples including the nursing home Recoupment demand and the serving physician edict.

Alabama Medicine – the monthly medical science and technology magazine of the association.

The Alabama MD – MASA's weekly newsletter, with an emphasis on medical socio-economic issues impacting medicine in Alabama and in the nation. At last count, no other state association had a weekly newsletter.

Continuing Medical Education – MASA offers a dozen workshops around the state each year, and acts as the accreditation agency for several other CME programs. AMA has repeatedly referred to MASA's program as among the nation's best.

Lobbying and Political Action – MASA represents you, and the issues you hold dear, in both the state and national legislative forums; our lobbyists monitor all legislation affecting medicine. The Association has ready access to both state legislators and our congressional delegation.

Legal Department – Reviews legislation and provides timely medical-legal information at seminars and through MASA publications. Provides guidance for physicians, office staff, the Board of Censors and the Board of Medial Examiners.

Annual Washington, D.C. Visit – MASA members meet with the Alabama Congressional delegation to discuss issues face-to-face in an atmosphere of informal give-and-take.

Practice Management Workshops – Offering the latest information on CPT coding, with drive-in seminars to tune-up your office staff.

Public Relations/Media Liaison – MASA maintains a close working relationship with the state's news media, telling medicine's story to the people of Alabama.

Image Enhancement of Physicians – MASA produces TV public service announcements, billboards, patient attitude surveys for your office, and informational posters and flyers to effect a positive public perception of physicians.

Physician Placement Register – published every other month, it can help you find a practice opportunity or sell your present practice.

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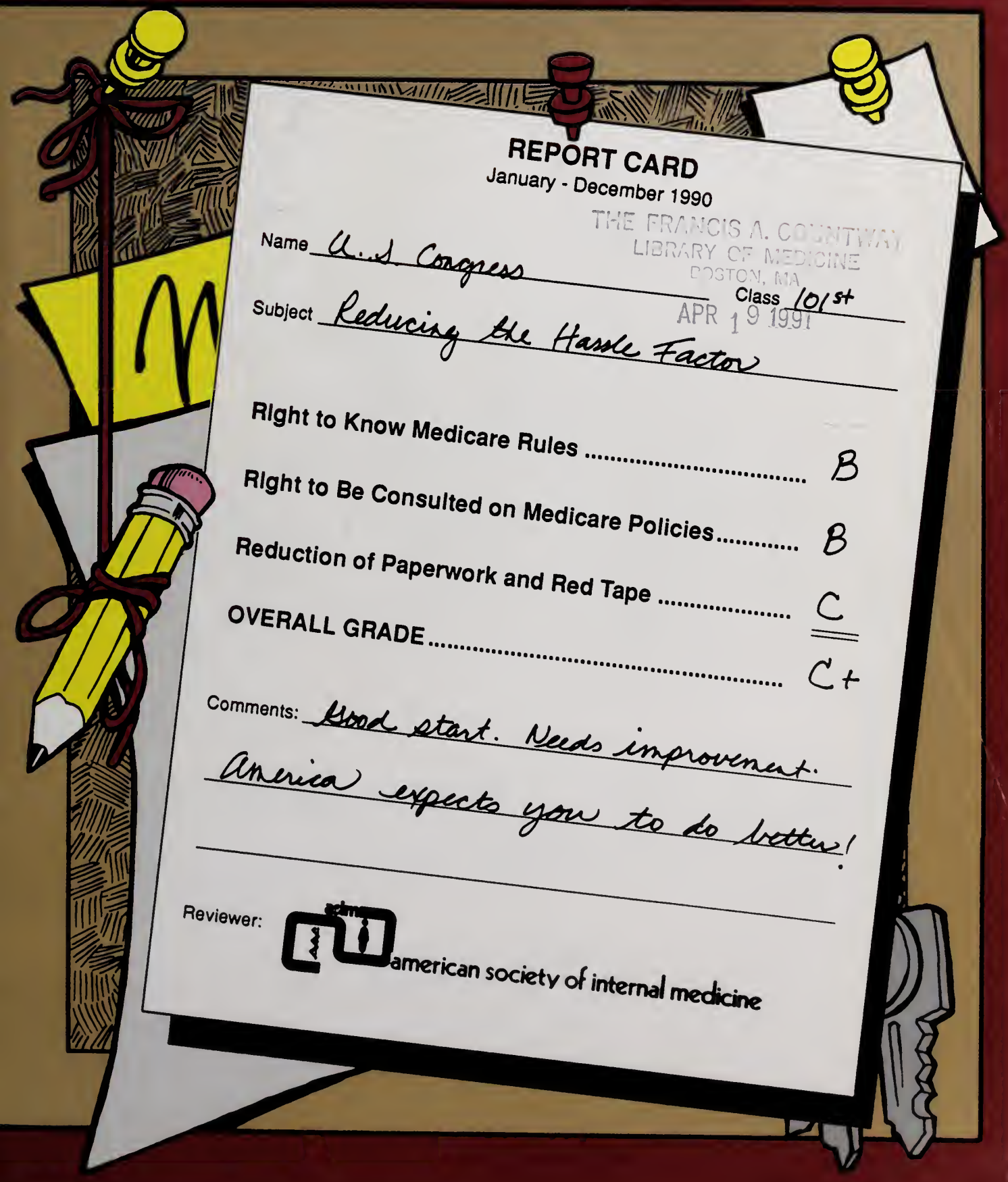

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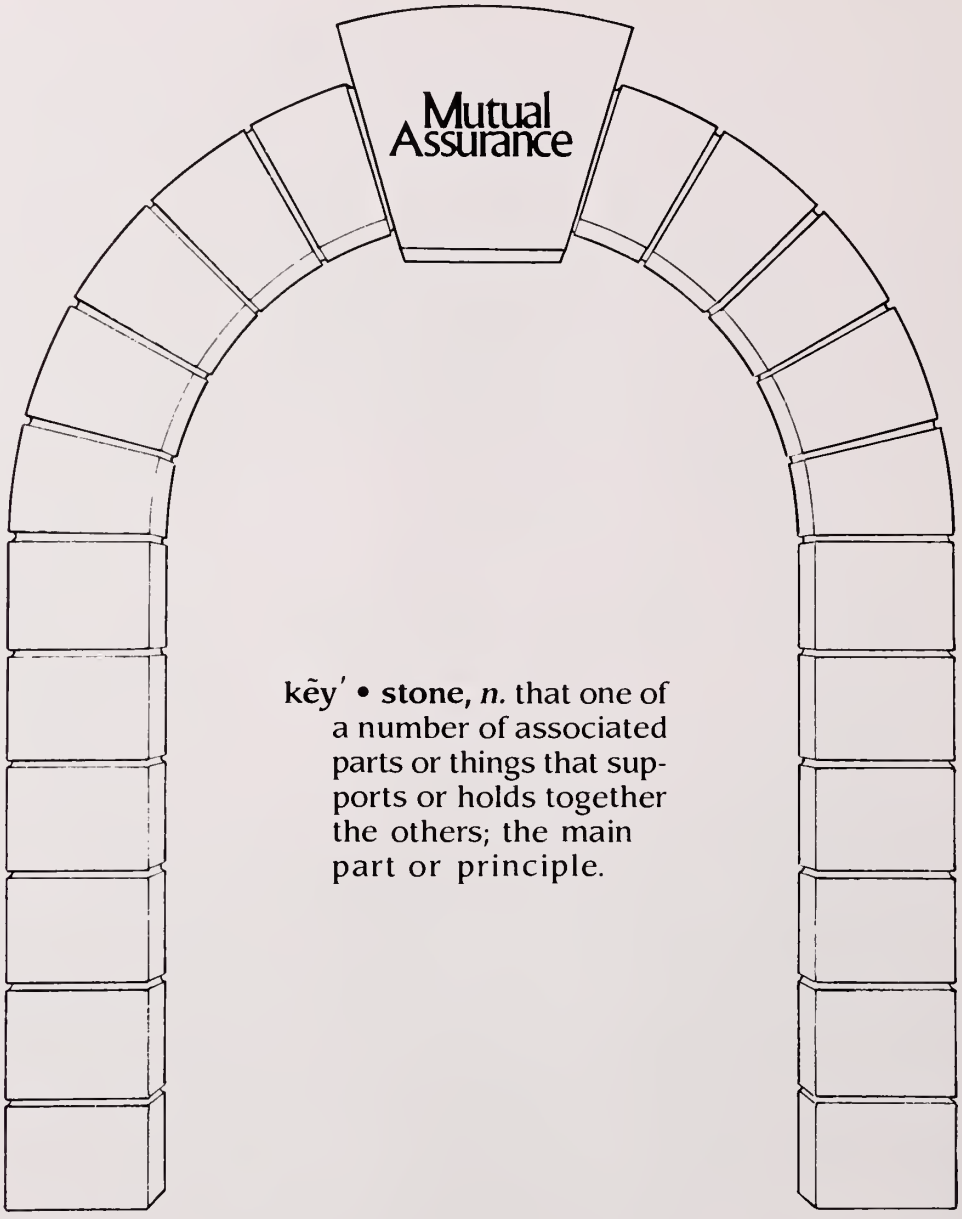

kē' • **stone,** *n.* that one of a number of associated parts or things that supports or holds together the others; the main part or principle.

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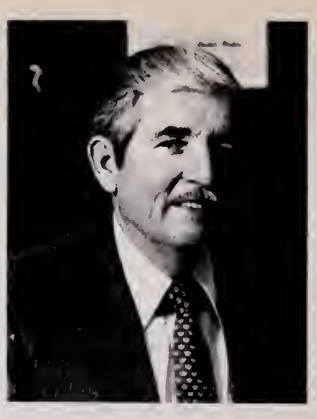
In This Issue

EXECUTIVE DIRECTOR



S. Lon Conner
Executive Director, MASA

Of Time And The River

The coming annual session, April 19-20 in Birmingham, will be my 15th. It always comes as something of a surprise that each one is as fresh and fascinating to me as the first. To be sure, the speakers change, issues are constantly ebbing and flowing, and the membership process assures that there will be many new faces each year.

But even these novelties do not account for all of the feeling that each annual session is an entirely new experience for me. I have, for example, heard the history of MASA many times in the Orientation program for new members but each retelling comes as a revelation to me. Perhaps this phenomenon can be explained in highly technical terms by experts on mind and memory but for my lay taste and comprehension there is no better explanation than the old Indian saying: "You cannot put your hand in the same river twice."

It is, of course, a new river each time you dip in your hand. While I have heard the history of the Association often before, it is new each time because I think of it in a different context than I did the previous year. The past, as they say, is prologue; but it is also a different prologue at each point in time because what is to follow is forever changing.

A century ago, your physician predecessors were fighting for public health; that fight continues. Then, as now, professional excellence was uppermost in the minds of the Association. Then, as now, the legislature was a battleground where MASA fought to maintain professional standards against those who would cannibalize medical practice morsel by morsel. Then, as now, there were hostile armies at the gate of medicine, those who would, if they could, victimize the public with their pretenses to scientific knowledge when ignorance and the exploitation of ignorance were their main stocks in trade.

The more things change, the more they are the same. Our Jerome Cochran lecturer this year, science reporter Robert Bazzell of NBC, will speak on "Science, Medicine and the Media." I know it will be enthralling, but this very topic was an annual focal point in the closing days of the 19th century, just as it is here in the last decade of the 20th.

Then, as now, physicians were flabbergasted that they enjoyed such high regard among their patients but seemed fair game collectively for every demagogue around.

The spirit of their dismay a century ago was captured by the satirist Ambrose Bierce in his famous Devil's Dictionary (1906): *"Physician.* One upon whom we set our hopes when ill and our dogs when well."

Sounds like 1991, doesn't it?

On Friday, April 19, we will hear a panel discussion on Desert Medicine by Alabama physicians recently returned from the Gulf war; the report of a pilot project on health care for the uninsured; and AMA Executive Vice President James S. Todd, M.D., on recent developments and future outlook from the viewpoint of organized medicine nationally.

This is all pretty heavy, but your load will be lightened Friday night at the social hour and dinner in the grand ballroom of The Club, which is pretty grand itself, with music by the Town & Gown group and dancing to follow.

Saturday morning you will be treated to an inside look at Oregon's healthcare rationing plan, the focus of the nation, by one of the prime movers, Roy Skogland, M.D., or Roseburg, Oregon. Also on Saturday morning, Kenneth Yohn, M.D., former President of MASA and member of the Board of Censors, and current President of the Federation of State Medical Boards of the U.S., will look where licensure has been and where it is likely to be as the next century dawns in just a few years.

I suspect there will be echoes and even similarities of the forecasts given in 1891 by Dr. Yohn's predecessors.

In the annual business meeting Saturday afternoon, many of the issues will reflect the turbulence of these changing times.

With all this rich intellectual fare and plain unvarnished fun, plus the joys of reunion and renewal, how can you not be at the Wynfrey Hotel April 19-20?

It is not enough to have attended last year or the year before.

It is not the same river of medicine that it was in 1990. Be there.

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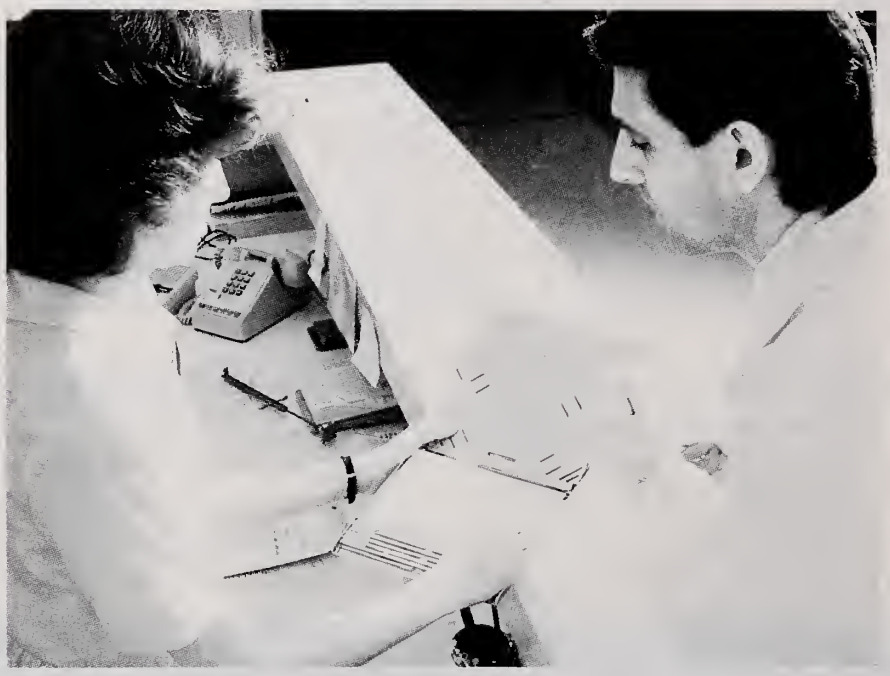

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ACP Membership: Consult your Advance Program mailed in December, containing information about the meeting and how to register.

Non-members: Watch for the complete schedule of events and a registration form in the Annual Session Digest appearing in the December 15, 1990, and January 1 and February 1, 1991, issues of ANNALS OF INTERNAL MEDICINE.

A|C|P

PRESIDENT'S PAGE

T. Riley Lumpkin, M.D.
President, MASA

Success!

[Continued from January]

The next basic law is very important and that is *good health*. We are physical as well as spiritual beings and need to know and understand our wonderful gift of life and extremely efficiently functioning and reparative body. We all understand we are only a breath away from death or a heart beat away from a stroke or other severe traumatic events. We are living on the edge, but *what a life* if we live it to the fullest and not worry about the frailty of our bodies. Health is a gift and we need to understand and promote good health for everyone.

We have heard the expression "you are what you eat" and may take it light-heartedly, but it is a truth we cannot overlook. Medical science has removed the dread of deadly childhood diseases with vaccines and has conquered most infectious processes but we have not been able to control heart disease, cancer, diabetes and kidney diseases, which are closely related to our habits and food intake. To conquer these conditions requires not only exercise of a moderate nature but good health habits such as copious water intake, proper sleeping habits and control of our eating habits.

The guidelines are available for proper health continuance but it, like everything else, must be learned, such as how to eat properly. Too many times we learn from childhood to eat what tastes good and ignore the good health parameters. We must learn temperance in all things, especially in keeping ourselves in good health.

The incentive for good health is a successful life so once we know the purpose of our life we know it can be accomplished through the right education and our attention to good health. Most degenerative diseases are modern diseases. We know the Japanese rarely have circulation diseases, but when the family moves to the USA and adopts our eating habits their heart disease rate soon approaches our rate of cardiovascular problems. Other examples may be shown but the *fourth law* of success is dependent on good health.

What is this fourth law of success? It is the doing of a job; success is accomplishment. It is *drive*. Any successful person is seen as a person on the go, an idea man, a man that gets things done. In spite of how many jobs a person has when he is asked to complete a task he can be counted on to finish the task. So we see the successful person as one with a drive, with energy and constant propulsion to reach the goal.

The fifth law is necessary to meet emergencies. If you are working toward your goal there is always Murphy's Law functioning at your side, ready to produce obstacles, unexpected problems, setbacks, snafus and generally a screwed-up mess totally unpredicted in your basic plan. So you need to meet these constantly arising problems with *resourcefulness*. Remember the company (IBM, I believe) that put out the slogan "THINK." This you must be able to do when the unexpected arrives. Coach Bear Bryant preached to his players "Always expect the unexpected" and be prepared. So resourcefulness is necessary to keep calm, assess the situation, think logically and with training to cultivate the ability to reach the right decision and act on it. That is being resourceful.

The sixth law is the art of never giving up. When problems arise, you must have the ability to think it through, reach a decision and correct the problem. If that doesn't clear up the situation, you do not tuck your tail between your legs and walk away with your head bowed, defeated. You bring forth your stick-to-itiveness and turn what you and many others thought

would be a failure into a welcomed success. So your perseverance is success law number six.

And with these six laws, or portions of them, men and women have reached for success, thought they had achieved it, but would always have a stumbling or fall when they did not realize the *seventh basic law of success*. This law should be number one but is not thoroughly understood and thus easily rejected by the majority of us. But our lives will continue to remain empty without it.

This law provides us with enduring happiness, complete satisfaction and the thing that brings it all together. This law is all-important and is simply having contact with God and utilizing the guidance and continuous help that is available to all of us. All we need to do is ask and seek the help available.

When God made man in His image He was like most manufacturers. He provided a set of instructions, a guide book and that is the "book of books," the Bible. All of our struggles are recorded there: how to overcome, and how to receive the parameters of life—all are there.

We have seen the main goals of mankind exhibited in two basic goals. *Vanity*, or desire for status, and *money*, to get the material things as well as power. King Solomon showed all of us that striving for status, wealth, and power were all vanity, and striving for vanity is like "striving after the wind."

We often wonder why we are made what we are doing on earth, and what should we do as individuals? While we are material beings we need material elements to keep us going, but we also need spiritual food or fuel to guide us in our search. The source of supply is available; let's make use of it.

Now we have defined success and see the seven basic laws that are necessary to be successful; so there should never be a failure in life. Life has a purpose for each of us and if we follow this way of life you will fulfill God's purpose and your own purpose for living, and be a success.

These seven basic laws of success, *the purpose of life*, the *right goal* must be reached through the proper preparation or *education*. This depends on *good health*, temperance in all things, *drive* to make the life go forward using *resourcefulness* and *perseverance*. If all is followed, then *no one* should ever be a *failure*. Use God's Wisdom.

Are you successful? Remember life was not intended to be an exercise in futility, but rather a meaningful and fulfilling experience. Reach out and grab it!

OBRA '90 and the Hassle Factor —

A Report Card

American Society of Internal Medicine

In its white paper released last September, The Hassle Factor: America's Health Care System Strangling in Red Tape. ASIM described the effects of legal, administrative and regulatory paperwork burdens imposed on patients and physicians and their adverse impact on the delivery of health care in America. When viewed individually, many of these "hassles" may seem to be an innocuous or annoying aspect of the business side of medicine. However, as more of these requirements have been legislated or promulgated as rules over the last 10 years, their cumulative effect is becoming more onerous.

While many of the most frustrating paperwork burdens arise from the Health Care Financing Administration (HCFA), it is also true that many regulatory requirements are mandated by law, and for that, Congress must share in the responsibility for creation of the health care "hassle factor." During the past decade, numerous legislative demands have been placed on HCFA and—by extension—Medicare carriers and physicians, largely through the massive, year-end budget reconciliation packages. These packages are more often than not crafted in the chaotic atmosphere of the waning hours of a congressional session, with the input of few key congressional committee members, staff and leadership and administration representatives, and voted upon by most members of Congress who have few details of a budget bill's provisions, let alone time to consider the impact of those provisions.

Once again, the budget for fiscal 1991 was put together under just such circumstances. At the time, students of government suggested that, given their performance, Congress and the president should have been sent to the principal's office. In that light, ASIM would like to offer the following "report card" on the Omnibus Budget Reconciliation Act of 1990 (OBRA 1990) and how well, or poorly, Congress addressed the "3 R's" of the hassle factor: (1) the right to know Medicare rules; (2) the right of beneficiaries and physicians to be consulted about the policies that affect them; and (3) the reduction of paperwork and administrative red tape.

The Right to Know Medicare's Rules

ASIM believes beneficiaries and physicians, like other citizens subject to governmental rules, have a right to know what those rules are and to have those rules and related information presented in clear, understandable language so that compliance with those rules is as simple as possible.

1. Release of Medicare carrier medical necessity screens. OBRA '90 provides for a study of this issue based on a pilot test release of screen parameters to be conducted in at least six states. As originally introduced in the Physician Regulatory Relief Amendments, introduced by Rep. Roy Rowland, MD (D-Ga.), and Sen. Max Baucus (D-Mont.), the bill would have mandated release of all carrier screens nationwide. ASIM believes that release of medical necessity screens will have the desirable results of increasing the credibility of the screens, thus making them a more effective instrument for modifying physician behavior. It also will help physicians anticipate what documentation will be required to justify the claims in excess of the screens. A study of the release of screens is a step in the right direction. However, since release will take place under OBRA '90 only on a limited, demonstration project basis, most physicians and patients will still be kept in the dark. Grade: C

2. Unique physician identification numbers. This number, called the UPIN, is required for a number of purposes under the Medicare program, including cross-coverage billing arrangements (in which one physician is on-call for or "covers" another physician's patients in the absence of another physician) and for physicians to whom patients are referred. Until recently, HCFA did not release these numbers. Physicians would have to contact every other physician with whom they associated to obtain their UPIN or send a request to their carrier, in writing, for the UPINs and wait several weeks for a reply. Fortunately, OBRA '90 required the secretary of the Department of Health and Human Services (HHS) to publish by March 31,1991, a directory of UPINs for

all physicians providing services to Medicare patients. Grade: **A**

For its overall efforts on improving the right of beneficiaries and physicians to know what information they need to comply with Medicare's rules, Congress receives a **B**.

The Right to be Consulted

Because the provision of quality health care can at times be very complex and require the special skills and knowledge of physicians, it is essential that physicians be consulted when government decisions are made that could adversely affect the health of their patients. It also is essential that beneficiaries be consulted in the decisions that affect their medical care.

3. Creation of a practicing physicians' advisory council. As another provision of the Physician Regulatory Relief Amendments, this council, composed of participating and nonparticipating physicians and those physicians practicing in rural and underserved areas, was established to review and comment on proposed changes in regulations and carrier manual instructions related to physician services. It should provide physicians with some voice in the development of government requirements affecting the provision of health care and ensure that those regulations reflect sound medical judgment and enhance, rather than deny, the provision of quality care. Grade: A

4. PRO review of alleged illegal patient transfers. Under OBRA '90, the HHS inspector general (IG) is required to consult with the local peer review organization (PRO) before sanctioning a physician or hospital for "patient dumping." The PRO must review the medical case record and issue a report of its findings to HHS. Prior to this, the IG could impose civil monetary penalties and other sanctions on hospitals and physicians for allegedly inappropriate transfers of medically unstable patients without first giving the physician or hospital a chance to respond to the charges. As a result, hospitals and physicians in rural areas, where there are long distances between health care facilities, might hesitate to transfer emergency patients with particular medical needs best met by another facility out of fear of the IG sanctions. Although this change will offer some due process protection for physicians and hospital administrators and account for local medical conditions, the IG is not bound by the PRO's report. Thus, even if the PRO finds the hospital and/or physician to have acted prop-

erly in transferring the patient, the IG can ignore that opinion and impose sanctions anyway. Grade: **C**

5. Coordination of physician review by carriers and PROs. OBRA '90 requires the HHS secretary to develop a plan for carriers and PROs to coordinate their physician review activities. Such a plan must include: development of common criteria for utilization and medical reviews, criteria for targeting reviews and improved methods for exchange of information between PROs and carriers. Developing common sets of review criteria will insert some measure of consistency into the Medicare review process. It will avoid placing physicians in situations in which the PRO, in its pre-admission authorization duties, approves a service but the carrier denies payment for the service as "medically unnecessary." However, if PROs and carriers fail to consult with the medical community, there is potential for the development of inappropriate review criteria that may result in denial of payment or sanctioning of physicians for legitimate medical care. Grade: **B-**

6. Clarification of PRO "willing and able" standard. This standard is used by PROs to determine whether a physician has complied with Medicare program obligations to provide appropriate, medically necessary care. Under current law, if a PRO determines the physician has failed in a substantial number of cases to fulfill these obligations, the PRO refers the case to HHS for sanctions. OBRA '90 changed the law so that PROs are required first to provide the physician with an opportunity to enter and complete a "corrective action plan," if appropriate. Subsequently, in determining whether the physician demonstrated an "unwillingness or lack of ability substantially to comply" with his or her obligations, the HHS secretary is required to consider the individual's actions in pursuing this corrective action plan prior to the time the PRO submitted its recommendations to the secretary. This strengthens due process protections for physicians faced with PRO sanctions. Grade: **A**

For its efforts to expand the right of physicians and beneficiaries to be consulted about Medicare policies that affect them, Congress receives a **B.**

Reducing Paperwork and Administrative Red Tape

Physicians spend approximately one-fifth of their time dealing with paperwork, responding to third party reviewers and contending with a myriad of administrative requirements imposed by government and private insurers. As these burdens are reduced, physicians will have more time to devote to their patients. As these burdens increase, patients' access to their physicians is diminished.

7. Authorization of reciprocal (cross-coverage) billing arrangements. A provision enacted as part of the Physician Regulatory Relief Amendments will enable physicians to retain long-standing professional courtesy arrangements in which one physician has been on-call for or "covered" another physician's patients in the absence of that second physician. HCFA had interpreted prior law to prohibit such arrangements, which would have required "covering" physicians to establish records for and bill those patients they may only see once. It also would have caused confusion for patients who would receive bills or explanations of benefits from physicians they may only have seen once. Grade: **A**

8. Aggregation of claims. As originally proposed in the Physician Regulatory Relief Amendments, medical societies would have been allowed to appeal Medicare denials on behalf of groups of physicians who experienced denials for the same types of claims or services. Very often, inequitable or incorrect denials by carriers go unchallenged because individual physicians lack the time, staff and resources to appeal payment denials. OBRA '90 provides only for a study of the effects of such claim aggregation. Grade: **C**

9. Elimination of Payment for interpretation of electrocardiograms (EKGs). OBRA '90 will eliminate, as of Jan. 1, 1992, Medicare payment for interpretation of EKGs performed or ordered to be performed in conjunction with an office or hospital visit. This provision was based on some very flawed premises such as that EKGs are routine and simple tests that can be read by a computer. Among Medicare beneficiaries who receive EKGs, 35% have abnormal test results that are discovered through a reading by a physician and require follow-up care. Because there is some question whether interpretation of "non-routine" EKGs may still be reimbursed, it will be left to the government to decide what is a "routine" EKG and what is not. If physicians decide to refer patients elsewhere for EKGs or have difficulty in finding cardiologists to interpret the tests, this could seriously disrupt physician/patient relationships and cause unnecessary stress for elderly Medicare beneficiaries. Grade: **F**

10. Medicare coverage of screening mammography tests. ASIM applauds the extension of Medicare coverage for these very necessary preventive health care exams. However, since the law.provides coverage only for tests given at certain times and for certain beneficiaries, there is a risk that carriers will apply

incorrectly Medicare's payment restrictions to tests ordered more often than the law specifies for Medicare coverage, even though more frequent mammograms may represent good, preventive care for individual patients. As a result, physicians may find themselves having to obtain patient waivers or contest carrier denials for exams done at the request of patients that are performed more often than the frequency limits in the law. This has occurred with Medicare coverage of periodic Pap smears. It is possible that physicians may refer patients elsewhere should the patients request mammograms more often than the law allows. Grade: **B**

11. Unique Physician identification numbers for Medicaid patients. Unfortunately, OBRA '90 also required HHS to develop a UPIN system for the Medicaid program in which the numbers may or may not be the same as those developed for the Medicare program. Thus, physicians who serve both Medicare and Medicaid patients may find themselves contending with two sets of numbers when filing claims in which they cite the services of another physician. Grade: **C**

12. Medicaid prescription drug coverage. To control rapidly rising Medicaid expenditures on prescription drugs, OBRA '90 requires prescription drug manufacturers to enter into rebate agreements with states in order for their drugs to be covered by a state Medicaid program. In and of itself, this is a worthy goal and will contribute to continued access to vital medications for the poorest Americans. Although provisions permitting therapeutic substitution of prescription drugs were not included in OBRA '90, a section was added that gives states the option of sending up prior-authorization requirements for physicians ordering prescription drugs for their patients. The law does require the authorizing agency to respond to a request for approval within 24 hours and to allow patients a 72-hour emergency supply of medicine. It also permits states to impose other limitations on the amount of drugs dispensed or the number of refills of a prescription. The rapid turnaround for approvals and emergency supply provisions should alleviate some of the administrative burdens characteristic of prior-authorization programs. However, the broad authority given to the states to impose restrictions may lead to excessive review requirements that hinder the ability of physicians to provide their patients with immediate assistance. Grade: **B-**

13. Medicare Select Program. As part of new fed-

eral standards for Medigap policies, OBRA '90 created a demonstration program in which lower-cost Medigap policies would qualify under the standards if benefits are provided through a preferred provider organization (PPO). Patients in private PPO plans often encountered problems if they needed care outside the provider network. Physicians who contract with certain managed care programs have experienced excessively punitive review and other disciplinary actions. The Medicare Select Program does allow payment for services outside the PPO network in emergency situations or if it is not "reasonable given the circumstances to obtain services through the network." In addition, such networks must offer "sufficient access" and establish an "ongoing quality assurance program for items and services furnished through the network." Interpretation of these terms and conditions by the HHS secretary, who can impose penalties on insurers failing to meet these requirements, will determine how disruptive the networks are to the provision of care to beneficiaries. Grade: **B**

14. Payment for Physicians' services by Medicaid. Beginning in 1992, OBRA '90 restricts Medicaid payment for services delivered to pregnant women and children younger than 21 to the following physicians: those board-certified in family practice, pediatrics or obstetrics; those employed by or affiliated with a federally qualified health care center; those with admitting privileges at a Medicaid participating hospital; those who are members of the National Health Service Corps; or those who possess a documented consulting relationship with a family physician, pediatrician or obstetrician for purposes of specialized treatment and hospital admission. The intent of this provision ostensibly was to improve the quality of care rendered by physicians to Medicaid patients. However, in many small towns and rural communities, the only physician available to care for Medicaid patients, possibly a general practitioner or internist, may not meet these criteria. It is unclear to whom physicians will have to report that they meet this criteria. Furthermore, some office-based physicians who are now providing care to Medicaid patients may not have admitting privileges at a hospital. Finally, this is the first time the federal government has decreed who may take care of patients. The result of this provision may be that Medicaid patients' already limited access to caregivers may be circumscribed further. Grade: **D**

15. Recertification of patients receiving home oxygen therapy. This provision prohibits payment for home oxygen therapy services after 90 days if the patient's physician fails to certify the need for continuation of those services approximately every 60 days. Such certification must be based on a follow-up test of the patient's condition. Patients who are obviously and demonstrably permanently oxygen-impaired are subjected to needless retesting, and it forces the physician to contend with additional paperwork. Grade: **D**

16. Modification of nursing home pre-admission screening and annual resident review requirements (PASARR). The PASARR requirements were passed in 1987 to prevent "warehousing" in nursing homes of mentally ill and mentally retarded persons who would be better served in other treatment settings. However, these requirements caused unintended consequences. Often, long-time residents of nursing homes who had no other home or family and who needed to be hospitalized for acute care, were kept from readmission to a nursing facility for weeks at a time while the PASARR rules were being followed. In addition, people with underlying diagnoses of dementia (which was excluded from the PASARR screening rules) and who usually require care in a nursing facility, were forced to undergo the annual screening process. OBRA '90 states that the PASARR screening rules do not apply to nursing facility residents who are readmitted to that facility after a hospital stay. In addition, OBRA '30 expanded its list of persons excluded from PASARR requirements to include those people with non-primary diagnoses of dementia. However, the bill retained the application of the PASARR rules to private, non-Medicaid patients with mental illness or mental retardation who, because they have no one to care for them in the community, have their care in a nursing facility paid for privately. Thus, these private nursing home patients are forced to undergo the pre-admission and annual screening. Grade: **B**

17. Self-referral and Ownership Disclosure. Effective Jan. 1,1992, OBRA '89 prohibited physicians from referring patients to entities providing laboratory services where the physician had a financial relationship. It required HHS to collect information on the identities of physicians with such relationships with a lab. This could have forced physicians to refer their patients for lab services to hospitals outside their community if the physician received any type of remuneration from the hospital, even if it did not involve the hospital's lab. OBRA '90 clarified this provision so that physicians with a financial relationship with a hospital—such as serving on the hospital board of directors—could still refer patients to that

hospital for laboratory services. OBRA '90 also reduced the number of entities required to report physician investors thus eliminating a major paperwork requirement for entities that bill Medicare infrequently or who fall outside the states designated in the law. The law did, however, require HHS during 1991 to monitor and to provide Congress with a report comparing the utilization of lab services by Medicare beneficiaries with physicians who have financial interests in an entity with the utilization rate of beneficiaries with physicians who do not have such an interest in the lab. If the report fails to take into account the appropriateness of the tests that are ordered or other circumstances (such as a physician-owned lab that is the only lab nearby available to beneficiaries) that are relevant to evaluating the desirability of maintaining physician-owned laboratories, a study of utilization rates alone for such labs would be misleading and may be used improperly to justify maintaining or expanding the 1992 ban. Grade: **B**

18. Charges for claims submitted on paper rather than electronically and advance medical necessity determinations. Two provisions that would have added tremendously to the "hassle factor" were not included in the final budget bill. One provision would have charged physicians $1 for every claim submitted on paper. Although many physicians do submit their claims to Medicare electronically, many solo practitioners or rural physicians lack the resources to purchase expensive computer equipment. In addition, some carriers also are not prepared to offer electronic claims processing to physicians. Furthermore, there are times when additional documentation, which cannot be submitted electronically, is required by the carrier in order for a claim to be paid. Because physicians are now required to submit all claims to Medicare, physicians who are unable to provide electronic claims processing would have been placed in situations where they were charged a fee for complying with a law that already has added considerable paperwork to many practices.

The second provision would have authorized carriers to require advance medical necessity determinations for services provided by physicians the carriers have determined to be "over-utilizers" of services or for whom the carriers have disallowed substantial numbers of items or services. Physicians who see large numbers of severely ill patients requiring more intensive use of services could be subject to these advance medical necessity determinations. Physicians

whose claims are constantly denied because the carrier fails to recognize his or her subspecialty and denies payment under "concurrent care" rules also would be affected by these determinations. This would add another huge administrative burden in providing Medicare patients with the care they need. It represents an unprecedented intrusion of the government into decisions physicians make on behalf of their patients. Given the poor performance of most carriers in conducting current review programs, this new requirement would not have been expected realistically to be applied in a reasonable manner.

Fortunately, these provisions were excluded from the final OBRA '90 measure. Grade: A

For its efforts to reduce paperwork and administrative red tape in the provision of health care, Congress receives a C.

Congressional Report Card on Addressing the Hassle Factor Three Rs:

Right to Know	**B**
Right to Be Consulted	**B**
Reduction of Paperwork	**C**
Overall grade	**C+**

(The final grade results from averaging all 18 grade categories.)

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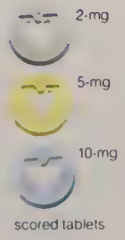

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Physicians and rationing

Baruch A. Brody, PhD
**In Texas Medicine*

The major economic pressures being exerted upon providers of health care are clearly transforming the practice of medicine. One of the most important transformations is the increasing pressure on providers to ration the health care they provide. A good example of this is seen when pressure is put on physicians to discharge patients earlier than desirable because of limitations on reimbursement under prospective payment schemes. This pressure seems to challenge the moral basis of the patient-physician relation by putting physicians in a position of dual loyalty: a loyalty to the patient that calls upon the physician to do the best for the patient regardless of cost, and a loyalty to society that calls upon the physician to aid in cost-containment efforts by rationing care.

Current cost-containment pressures seem to be leading American health care into a world of rationing. Many people have urged that we resist rationing on the grounds that it would compromise the integrity of the patient-physician relation. I shall argue that rationing is in fact both inevitable and appropriate, but the world of rationing is one in which the role of the moral physician involves complex balancing of moral obligations.

This article offers a framework for dealing with these issues. First, rationing is differentiated from other forms of expenditure control. Then, it is argued that rationing is the morally appropriate response and not just an acceptable approach to conditions of scarcity. The conclusion offers a new approach to the problem of dual loyalty.

Rationing and other forms of cost containment

Not every measure designed to contain costs involves rationing, so first it is important to differentiate rationing from one other major form of cost containment, eliminating waste. Eliminating waste is deliberately not providing a medical intervention that actually affords no benefit to the patient. By contrast, rationing is deliberately not providing a medical intervention that would, if provided, benefit the patient, on the grounds that the benefit does not justify the expenditure in light of conflicting claims for that expenditure.

Eliminating waste raises none of the ethical issues raised by rationing. Physicians who withhold a wasteful intervention have not withheld from their patients anything beneficial and have not, therefore, compromised in any way their loyalty to the patient. By contrast, physicians who ration have withheld from their patients a beneficial intervention and have, in that way, compromised their loyalty to the patient.

This distinction served as the basis for an important argument offered by Dr. Marcia Angell, Deputy Editor of the *New England Journal of Medicine*.[1] Dr. Angell argued that physicians can make a major contribution to cost containment without participating in rationing if they would only focus on eliminating unnecessary, wasteful care. She offered three major categories of such care: (a) Costs mount up when inexpensive laboratory tests and roentgenograms are ordered so often without any valid indication. For example, eliminating routine roentgenograms of the chest for every admission to the hospital save $1.5 billion a year. (b) Expensive procedures used in circumstances where they are of no known value is evidenced by large variations among geographic regions in the rate of the procedure. For example, eliminating carotid endarterectomies in asymptomatic patients would save $250 million a year and would prevent unnecessary perioperative risk. (c) Aggressive treatment of terminally ill

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patients is useless Dr. Angell estimated that treating such patients less aggressively and giving more attention to their comfort could save $8 billion a year and prevent much suffering.

Of course, we find it easier to draw the theoretical distinction between eliminating waste and rationing than to apply that distinction to specific interventions. Ironically, some of the same examples of wasteful expenditures that Dr. Angell offered may actually produce some benefit, so their elimination probably becomes a matter of rationing. The aggressive care of terminally ill patients does not prevent them from dying, but it often prolongs both their lives and their dying; at least some of these patients view this as a benefit even when the quality of life during the time in question is poor.[2] Routine roentgenograms, in the very study that Dr. Angell quoted[3], did provide some benefits to some patients (pneumonias were picked up and treated earlier; a solitary pulmonary nodule was detected and the patient underwent resection of his right upper and middle lobes). So in practice these interventions may not be entirely wasteful. Because they offer some element of usefulness, any decision to eliminate them would, therefore, be a decision to ration rather than to eliminate waste. No doubt some truly wasteful health care expenditures exist, but they may be fewer than most people suspect. Differentiating them from modestly useful expenditures that are candidates for rationing may be a much harder task than most people believe.

The moral appropriateness of rationing

Having said this much to explain how I understand the concept of rationing, I turn next to a defense of the moral appropriateness of rationing. The argument for rationing contains four steps:

A. The cost of providing for everyone all of the health care from which they could benefit, if we really mean to provide access to everyone and if current demographic and technological trends continue, is greater than America is willing to bear.

B. Therefore, at least some Americans will not get at least some of the care from which they could benefit.

C. It is better to base the decision as to who gets which forms of care upon a deliberate rationing plan.

D. Therefore, rationing is a morally appropriate policy.

Let me elaborate on and defend each of these steps. Step A, as formulated, is a claim about what Americans are willing to pay for health care. This claim is relatively easy to defend. Health care expenditures have risen to almost 11.5% of our Gross National Product (GNP)—a much higher percentage than that of any other country [4]. This is so despite the fact that 31 million Americans have extremely limited access to health care because they are uninsured by any public or private insurance scheme and must either pay for their own care or get it at public clinics and hospitals[5]. Just covering these people with reasonable access to care will raise the percentage of the GNP devoted to health care. Then too, technological advances are providing us with new and useful but expensive forms of care, while demographic changes are producing more elderly Americans who could benefit from these new forms of care.[6] Providing such care to these new elderly will further raise the percentage of the GNP devoted to health care. Even at the current 11.5% of the GNP, American politicians are reluctant to vote for additional taxes to pay for health care programs, American industrialists are resisting paying for increasing insurance premiums for their health insurance programs for their workers, and American citizens are griping about the out-of-pocket costs they must bear. Is there any chance then that these groups will agree to pay for providing everyone with all the health care from which they would benefit? Even without these changes in coverage and technology, the Health Care Financing Agency (HCFA) estimates that health care expenditures will grow to 15% of our GNP by the year 2000 [7]. Changes in coverage, technology, and demography might bring that figure closer to 20% of the GNP. To expect America to pay that bill is just not realistic, and to expect the country to do so in light of its many other social and individual needs and projects is probably unreasonable. Thus, Step A is correct.

Various suggestions have been put forward about how to avoid that conclusion. Two deserve some discussion here. The first, implicit in Dr Angell's article, is that if we could save enough money by eliminating waste we can provide everyone with all the care from which they could benefit and not have to spend 15% to 20% of our GNP on health care. The second is that we could save the money by emphasizing preventive medicine rather than expensive care of those already sick. Let me briefly explain why neither suggestion is satisfactory.

Part of the difficulty with Dr Angell's proposal has been explained above. If many of the interventions (eg, routine roentgenograms of the chest) she described as wasteful are not wasteful because they provide at least some benefit, then their cost will not

be saved by a program of eliminating waste. Only a program of rationing will save their cost. So the savings from programs of eliminating waste are far less than Dr. Angell estimates. But let us disregard that point for a moment, since her proposal faces, as Dr William Schwartz has pointed out[6], an even more fundamental objection. Programs to eliminate waste only lower the baseline of health care costs and do nothing to seriously modify the long-term trend of increasing costs, which eventually proves unacceptable. To put his point very concretely, suppose we could save $60 billion (10% of current expenditures) by eliminating waste from our health care system. That represents one year of growth in health care expenditures. We would start with a new baseline that is lower than current expenditures; but, in one year, we would be back to our current level of expenditures, since current growth is $60 billion a year. Eliminating that much waste only buys us one year.

The issue of preventive medicine is more complex. Let me just make this point: the savings produced when preventive medicine succeeds in preventing early morbidity and mortality may be offset by very expensive future expenditures for the care of those patients in whom earlier death is prevented. Only a few studies, eg, Oster and Epstein's study of the cost-effectiveness of cholestyramine as antihyperlipemic therapy [8], even consider this issue. We are left with an open question, then: does preventive medicine—as valuable as it may be in prolonging life and improving its quality— actually save money or cost more in the long run? It would, therefore, be premature to count on prevention as a way of saving money, even if we had better prevention programs than we now have.

Step B of my argument follows directly from Step A. Because the health care we are willing to pay for falls short of the amount of health care from which Americans could benefit, some Americans will not get at least some of that care. So we turn then to Step C, which claims that the interests of justice and efficiency can be better served by a rational policy of rationing than by any other approach. Justification for such a policy can be seen when we examine, as an example, our allocation of ICU beds. ICU beds are, of course, an expensive form of therapy; on economic grounds, more and more institutions have failed to provide enough beds and staff to meet the needs of everyone who could benefit, even if only marginally, from admission to an ICU. But even if beds were available, should available funds be spent for this purpose or should the funds be used to provide staff for other needs? The Task Force on Guidelines for the Society of Critical Care Medicine has published guidelines for ICU admission and discharge [9]. These guidelines make it clear that certain patients should not be admitted to an ICU because the expected benefits are too small to justify admission. Even if admitted, these patients should certainly be given a lower priority for ICU beds than other patients who could benefit more. Such guidelines seem to offer hope for equity and efficiency in the allocation of limited resources. But they involve rationing care from those who are judged to be unlikely to benefit sufficiently because there is some chance that these patients could benefit and they are being denied that chance. Even putting these patients in an intermediate care unit, as others have suggested [10], means rationing from them their best chance. In their fairness and efficiency, the above-referenced guidelines provide one example of the superiority of formal rationing policies over the chaos that is their alternative in a world of limited resources. So our conclusion, Step D, follows, as I have argued elsewhere [11].

The role of physicians in a world of rationing

What does all of this mean, however, for the patient-physician relationship? What are the roles of the medical community in general and of individual clinicians in rationing? These issues deserve careful attention.

Let us begin with the questions of loyalties in the patient-physician relationship. Those who object to rationing argue that it introduces conflicting loyalties. I would urge, however, that the existence of conflicting loyalties has always been present and appropriate in the patient-physician relationship. Any clinician who has ever gone home early to see his or her child perform, deciding to see a patient later (even though earlier might be better for the patient), has recognized the existence of dual loyalties and dealt with it. Any clinician who has limited the amount of unreimbursed care he or she will provide so as to insure a certain income (even though a higher limit might be better for the indigent patients) has recognized the existence of dual loyalties and dealt with it. No clinician could realistically claim having always put his or her patients' best interests before anything else, and that is appropriate. Like other human beings with many obligations, clinicians must learn to balance these obligations rather than to always give one priority over all others.

Rationing that is necessary for cost containment

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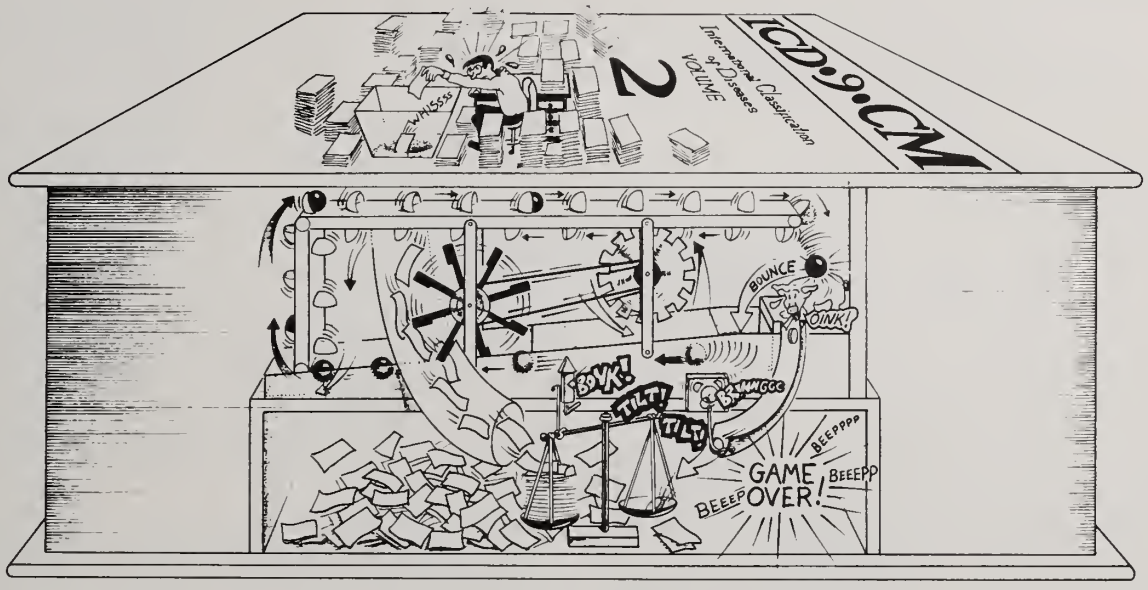

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merely extends the set of loyalties that physicians must balance, and there is nothing wrong with that. Physicians in a world of rationing are called upon to withhold some beneficial care because the cost is too great in light of other conflicting needs. This means that they are being asked to balance their current patient's best interests against the needs and best interests of other patients and against other needs and projects; a call for such balancing is perfectly appropriate.

Rationing does carry new implications for physicians continuing loyalty to their patients. The most important is the physician's obligation to protect patients against inappropriate and excessive rationing. After all, the physician may be the only person to recognize excessive rationing. The famous Wickline case in California illustrates this point [12]. Mrs. Wickline had been diagnosed as having Leriche's syndrome, an obstruction of the aorta just above the point where it divides into the two common iliac arteries. She had surgery and was discharged earlier than her physicians really wanted because of limitations on her postsurgical stay imposed by the third party payer (the State of California). These limitations constituted a form of rationing. She lost her leg and sued the state, claiming that it caused the physicians to discharge her earlier than appropriate. A crucial issue discussed by the court was the responsibility of the physicians to demand further time for the postoperative stay if they judged it to be necessary. That seems right to me. The physician should not demand further time if the benefits are marginal, for doing so would place too much emphasis upon the obligation to the patient. The physician should demand further time if early discharge seriously threatens the patient's health, for failing to do so would place too much emphasis on the obligations to society. Even in the world of rationing, loyalty to patients exists in a robust fashion, for physicians are called upon to be patient advocates against zealous third party payers.

So much for the implications of rationing for the individual physician. What about the role of the community of physicians? Rational schemes of rationing require extensive information about the outcomes of treatment because we cannot ration intelligently unless we know what we get from different interventions with varying costs. Exactly what are the benefits, for example, of routine roentgenograms of the chest when patients are admitted to the hospital? Secondly, we must mesh that information about outcomes with public values and priorities. From the public perspective, how important is the earlier discharge that may follow from detecting infections earlier by using routine roentgenograms of the chest at the time of admission? Medicine, as an organized community, must play a major role in insuring that this information is developed in a responsible manner. This need is suggested by what happened in Oregon, the first state to mandate rationing of some health care (eg, expensive transplants). The purpose was to save money so that more citizens could be covered by Medicaid. Individual physicians have played a major role in drafting the legislation and in deciding what care will or will not be provided. Ralph Crashaw, MD, founded Oregon Health Discussions, which has led community discussions on the issues. John Kitzhaber, MD, the president of the state senate, guided the rationing bill through the legislature [13]. While such individual initiatives are commendable, I would suggest that organized medicine needs to play a major role in insuring that such efforts are encouraged and supported.

One major issue remains. How will the courts handle rationing? In particular, suppose that patients who suffer a bad outcome sue, claiming that they would have fared better if they had not been denied (as part of a rationing scheme) some intervention that is only marginally beneficial in general but that would have been very worthwhile for them. Will patients win such malpractice suits or will the courts say that practicing with a rationing scheme is practicing according to the standard of practice rather than practicing negligently? E. Haavi Morreim, in an important recent essay [14], has stressed the significance of that question. To my mind, there is only one possible answer. Unless courts accept acting in accordance with a reasonable rationing policy as a defense in malpractice suits, society will simply have to forget any hopes it may have to contain the costs of health care.

The world of rationing is obviously a morally complex world. It is, however, the real world, for the real world is one of scarcity. The moral life can only be lived in the real world, for that is the world in which we live and in which we are called upon to behave as moral agents. Thus, moral physicians of the future will be those who know how to balance the conflicting demands the real world imposes.

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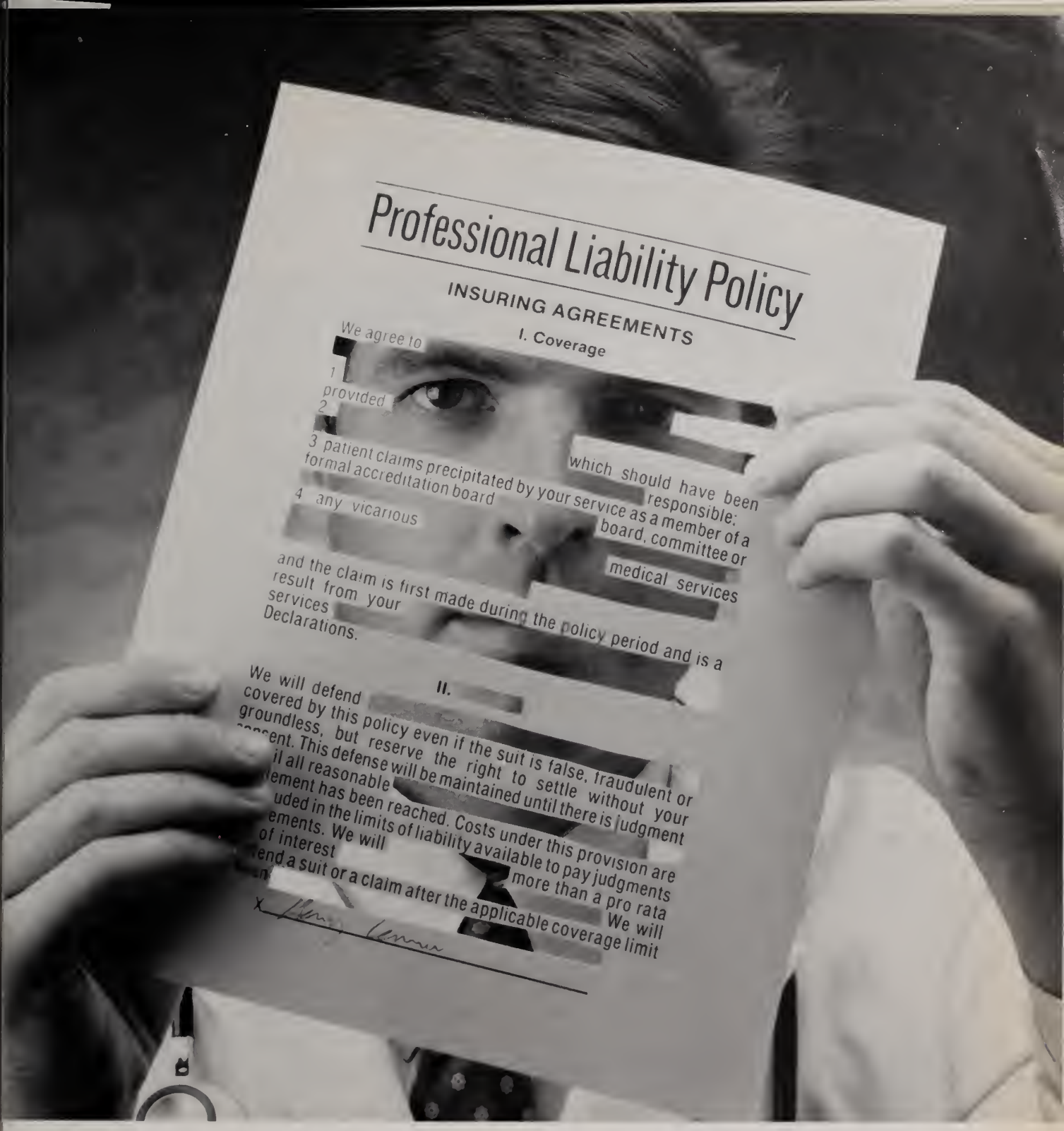
References continued on page 31.



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Responsibilities of Health Yuppies

Florence Kavaler, M.D., M.P.H.
*In The New York State Journal of Medicine**

Years ago, educated people who thought little of wealth but who passionately supported a variety of social causes were called "beatniks." These are the days of the "yuppie," the well-heeled, well-educated young professional who specializes in self-interest and egotism, with a penchant for mergers and acquisitions as well as designer ice cream.

As educated persons and health professionals, young physicians, or "health yuppies," may too easily lose sight of their appropriate goals and responsibilities. Their goals should include involvement with their families and commitment to their communities as well as to the medical profession. The term "family" encompasses both the traditional definition of immediate relatives and the more contemporary view of family as the extended, connected group of friends, neighbors, and others who share comparable life styles, interests, passions, concerns, and goals. "Community" can describe a tenants' groups, block association, neighborhood crime watch, or local parent-teacher association, as well as the historical preservation society, civic theater, teen recreation center, and houses of worship, for example.

However, there is another aspect of community, which entails looking anew at the surroundings and seeing and experiencing the hidden grim realities to which many of us have become inured. Profound poverty and complex social problems are present in our midst. Homeless people, sometimes entire families, are sleeping over grates on the sidewalks and in the parks. Alcohol-addicted and destitute men insist on wiping windshields as people fearfully drive through the Bowery. Young people struggle with their drug habits, teenagers are having babies, and many elderly people are barely surviving.

These people and these problems are also part of the community. These aspects of a young physician's community should not fade into the background as he or she aspires to and attains the professional and financial success associated with a "health yuppie." Too often, achieving a comfortable standard of living is accompanied by the loss of one's capacity to empathize with others, and a resultant complacency. Complacency among educated, talented professionals can create a dangerous and pervasive social apathy and contribute to amorality throughout society.

As educated persons in a helping profession, young physicians are predominantly involved in service to the individual. However, a leadership role in the community at large is equally important. People give physicians their trust. They trust them with their health, and, in some cases, their ability to work. Physicians are placed on a pedestal in the community. Wearing a white jacket or uniform confers a certain status and is a mantle of respectability and professionalism. This status is not without its obligations, which extend beyond those of professional competency and preclude professional isolation. For example, when treating elderly patients, a physician must look beyond their obvious health problems and their aging eyes, to note as well their social isolation and the loneliness and disorientation that they may face. When providing professional care for the elderly, it is important to recognize that many of these people may be struggling with a fixed income, suffering from malnutrition, and facing needless deprivation because of inadequate public transportation. Some elderly patients may also experience the trauma of "warehousing" in nursing homes, being cared for by strangers and bewildered by rules and regulations and unwanted roommates.

Health yuppies have a responsibility to contribute their time and talents to the communities in which they make their homes and livelihoods, even in ways that may not be directly related to their careers. Young physicians and their families have much to gain personally by establishing ties to their communities, and, in the process, will enhance their professional standing. Every community benefits from the

Reprinted by permission from the New York State Journal of Medicine, © The Medical Society of the State of New York. Kavaler F: "Responsibilities of health yuppies." NY State J Med 1991: 43-44. Dr. Kavaler is Professor, Department of Preventive Medicine and Community Health, State University of New York, Health Science Center at Brooklyn, 450 Clarkson Ave., Box 43, Brooklyn, Ny 11203.

infusion of new values and new ideas.

Young health professionals may already be familiar with leadership through involvement in campus organizations environmental groups, the antinuclear movement, or religious activities. As a health yuppie, these interests and activities should not be put aside. It is important to become involved, to get into the fray, and to take a stand in today's conflicts and problems.

By the turn of the century, just ten years hence, today's health yuppies will have families and careers that are well established, and they will enter middle age in an era when older people are more productive and more vital than ever. By then, some of today's problems may be of crisis proportions. Who will help determine how our communities will deal with the homeless, the addicted, and with those afflicted with the acquired immunodeficiency syndrome (AIDS) ?

The scope of these problems is already staggering. Consider the following examples. In the past ten years, the proportion of New York City residents classified as poor has soared from 17% to 25%. Currently, more than 3,289 families and 12,000 single people in this city are homeless or are housed in hotels and shelters;[2] many of these makeshift residences are filthy and dangerous. Most of the children of these families are transferred from school to school and seem destined to be deprived of an education as well as of a stable home. An estimated 20-25% annual increase in homeless people is projected each year for several years to come.[2]

The illegal drug problem is epidemic. It is rampant in elementary schools, and it cries out from the sports pages of the newspapers. The introduction of crack cocaine to the drug scene has made an already dreadful cycle of addiction, dissolution, and crime even more deadly.

Nationwide, more than 67,300 people have already died of AIDS,[3] and more than 15,700 of those deaths have been in New York City.[4] Who will take care of, comfort, and house these terminally ill people awaiting medical miracles?

Accompanying this growing list of critical health and social problems is a crisis of leadership. There is corruption in government, on Wall Street, and even in the ministry. An ever-extending list of famous names gains a place on the dishonor roll. Health professionals and physicians are not immune from using the system for personal gain, corrupting their professions, and disavowing the values of their families, community, and profession. Immorality and irresponsibility are nothing new, but there seems today to be more and more emphasis on the hedonistic, the "quick fix," instant gratification, and the philosophy of "take the money and run before getting caught."

At times, society appears to lack the leadership to combat countless, complex problems. However, there are many examples of people committed to change things for the better. It is important for those with means to give financial support to needy individuals, institutions, and causes, but writing a check is just part of the responsibility. Health professionals should also put a piece of themselves into the things they care about.

One only has to look around at relatives, friends, and neighbors, and see the dozens of examples of commitment and concern. Efforts are as varied as providing religious and moral education for children, organizing trips for terminally ill children, running for the school board, raising scholarship money through the Rotary Club, helping burned children through the Shriners, teaching cardiopulmonary resuscitation at the Red Cross, and working with the Association for the Help of Retarded Children.

Enjoyment of the good life should not displace one's capacity and determination to do good, to contribute, and to make a difference. There is great satisfaction and reward to be found by turning away from narcissism and embracing the causes that have meaning for oneself and for society.

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Long-Term Care
Financing Update

American Medical Association

A FAST BEGINNING, BUT. . .

Federal commissions, councils and task forces convened in 1990 under varied sponsorship to review long-term care (LTC) financing concerns and possibly develop proposals for new programs. In addition to the American Medical Association, private organizations such as the American Association of Retired Persons, Health Insurance Association of America and the Blue Cross and Blue Shield Association issued their own policy statements during this period.

Public debate and action on programs for LTC financing have been deferred, however. With the exception of proposals by the U.S. Bipartisan Commission on Comprehensive Health Care (the "Pepper Commission"), and legislative proposals on limited aspects of the issue, national attention to LTC financing has lagged.

Long-term care is a significant issue for the aging U.S. population. A recent estimate by Joshua Wiener, Ph.D., of the Brookings Institution foresees increases in spending for both nursing home and home care services of at least 210% within the next 30 years, with average family income and assets expected to rise only 64 and 25% respectively during the same period. As a result, developments in the LTC environment and competing viewpoints on long-term care policy are becoming increasingly urgent health system concerns.

Public Sector

Substantial activity initiated at the Federal level in 1989 continued into 1990. In addition to the Pepper Commission, other groups are looking into the issue of LTC financing as a component of health care reform: the quadrennial Social Security Advisory Council chaired by Deborah Steelman (the "Steelman Council"), an internal Health and Human Services (HHS) task force chaired by undersecretary Constance Horner, and an informal working group assembled under former White House deputy domestic policy advisor William Roper, M.D. Internal task forces and working groups have maintained a low profile, while Pepper Commission and Steelman Council deliberations have been more public.

Pepper Commission

The Pepper Commission released its original report in March 1990, voting 11-4 for a $42.8 billion plan to provide long-term health care for all Americans, regardless of age. Its final report, issued on September 25, contains major LTC financing elements:

- Social insurance for home- and community-based care, financed by the federal government and individual coinsurance, available to the severely disabled and subsidized for certain low-income persons.
- Coverage for the first three months of custodial and skilled nursing care, regardless of income, with this "front-end" care financed by the federal government.
- Protection of life savings, by exempting non-housing assets of up to $30,000 for single persons and $60,000 for married persons from the Medicaid "spend-down" requirement prior to qualifying for federal LTC financing assistance.

Private long-term care insurance would fill gaps not covered by this plan, with government encouraging development of private LTC insurance through tax incentives, such as treating LTC premiums and benefits in the same manner as health insurance.

Steelman Council

The Social Security Act requires the Secretary of HHS to convene an advisory council every four years to review virtually all aspects of Federal assistance programs under the Act. This council includes the medical profession represented by the American Medical Association — as well as the Chairman and 12 other members representing varying health care system interests.

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Chairman Steelman has indicated that the Council is interested in examining the entire U.S. health care system, not just Medicare and Medicaid. She has also argued for private insurance to pay for initial medical care up to a certain threshold, with federal government coverage (including long-term care and home care benefits) to begin thereafter.

The Council's interim report on health care financing was originally expected in July of 1990, but disagreements among its members have deferred consideration of both LTC and other health care issues. The final health care financing report is now scheduled for March 1991, and LTC financing may be reconsidered at that time.

Legislative Proposals

Legislative approaches in 1990 did include some public-private solutions to financing long-term care. A bill introduced by Representative Barbara Kennelly (D-CT) would have provided a waiver from Medicaid requirements to all for demonstration of several such approaches but was not included in the Omnibus Budget Reconciliation Act of 1990 enacted at the close of the 101st Congress. One of these demonstrations would have tested an "asset waiver" program under Medicaid similar to an AMA proposal. Individuals could purchase private long-term care insurance to protect any level of assets. Then, they would be required to spend down only those assets left unprotected by the long-term care insurance. Once those unprotected assets and the insurance coverage are spent, individuals would become eligible for Medicaid.

Public financing proposals include long-term care as a component of national health insurance, with emphasis on eligibility screening and case management. For example, the Claude Pepper Comprehensive Health Care Act introduced by Representative Mary Rose Oakar (D-OH) includes a "Lifecare Long-Term Care Protection Program" that provides for home and community-based care eligibility screening along with allocation of services by a case management agency. Representative Fortney (Pete) Stark's (D-CA) Mediplan Act of 1990 proposal and the Lifecare Long-Term Care Protection Act introduced by Senator Edward Kennedy (D-MA, a member of the Pepper Commission) and Representative Edward Roybal (D-CA) also contain such provisions.

Public-private solutions and proposals for public financing will continue to be considered. Bills similar to those originated in 1991 will be introduced in the 102nd Congress.

Private Sector

Activities and policies of major private organizations reflect their priorities.

American Medical Association (AMA)

Announced in March 1990, the AMA's Health Access America (HAA) proposal supports an enhanced LTC financing role for the private sector. This proposal calls for the same tax treatment for private LTC insurance as presently afforded health benefits; a tax deduction or tax credit that encourages family caregiving, and; exemption of assets from Medicaid spend-down requirements, up to the dollar value of private LTC insurance benefits.

The HAA proposal also promotes a role for public LTC financing. Major elements include Medicare reform through creation of an actuarially sound prefunded program; Medicaid coverage for elderly persons below the Federal poverty level, and; sliding scale subsidies for purchase of LTC insurance by individuals between 100 and 200 percent of the poverty level.

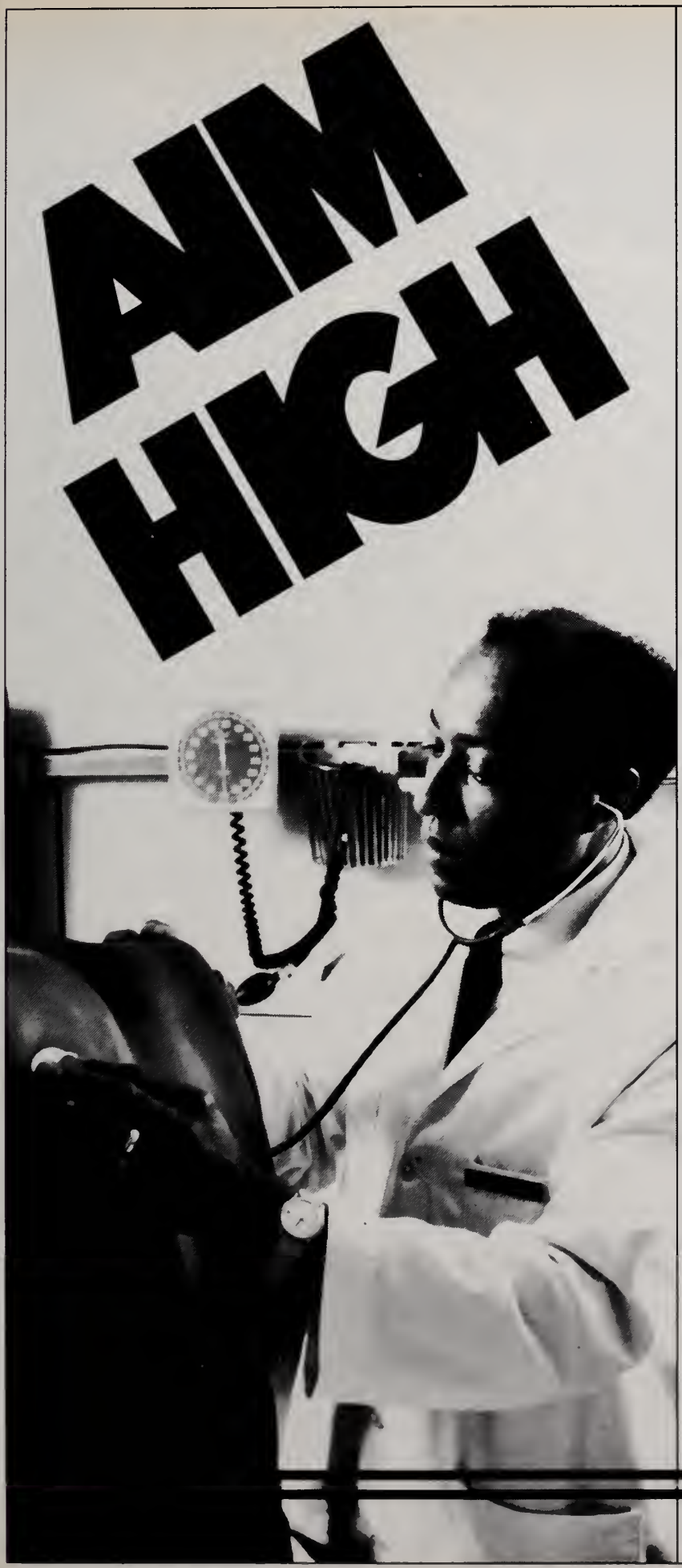
American Association of Retired Persons (AARP)

The AARP favors a primarily public role for financing long-term home, community-based and nursing home care. It advocates a social insurance approach through expulsion of Medicare to all Americans reguardless of age.

At the same time, the AARP has recognized the opportunity to show awareness of its membership's more immediate and potential needs for private LTC insurance.* The AARP thus initiated sponsorship of a Prudential Insurance Company long-term care insurance offer in August, with an application deadline of October 31, 1990. Known as "AARP's Long Term Care Plan," it is an indemnity payment plan that includes benefits for home health cue/adult day care as well as all levels of nursing home care.

Health Insurance Association of America (HIAA)

HIAA represents approximately 350 commercial health insurance companies. It supports tax clarifica-



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tions and changes to stimulate the private market, arguing that private coverage offers the greatest flexibility in serving individual needs. HIAA believes that the government's role in financing long-term care should be "targeted" to those who are in greatest need.

Blue Cross And Blue Shield Association (BCBSA)

BCBSA supports tax incentives for the purchase of private LTC insurance, as well as improvements in public long-term care programs for the low-income, aged, and disabled. Reflecting the local interests of its member Plans, BCBSA also asks that states have greater flexibility to develop partnership arrangements with private long-term care insurers.

POINTS OF AGREEMENT AND DISAGREEMENT

Public and private proposals identify similar long-term care financing components but differ on private and public sector roles.

Agreement

There is substantial agreement that a public longterm care program should benefit people of all ages. Pepper Commission proposals also recognize that government can encourage private LTC insurance through tax incentives, as well as provide LTC funding for the poor. In addition, public and private interests agree on the principle that persons incurring long-term care expenses should be protected from impoverishment — that a public program should help to protect the non-housing savings of a lifetime, up to certain maximum levels.

Disagreement

Significant disagreement on the specifics of LTC financing is traceable to the role envisaged for public programs versus private sector initiatives. At present, the Pepper Commission proposes three-month government "front-end" coverage of initial nursing home care for Americans of all ages, with only a "back-end" role for private LTC insurance to fill in the gaps of a federal/state program and to provide catastrophic nursing home coverage. AARP statements also support a dominant public role. Early in 1990 it argued that "long-term care should be provided . . . through a comprehensive public program based predominantly on social insurance principles (e.g., Social Security)."

In contrast, the AMA argues that a federal program should emphasize private long-term care insurance. This position is supported by the Blue Cross and Blue Shield Association and HIAA. HIAA specifically criticizes the Pepper Commission's "far-reaching proposal" as "prohibitively costly," benefiting primarily middle and upper income elderly who could afford private insurance.

Proposals to protect long-term care users from impoverishment illustrate the disagreement on public versus private roles in LTC financing. The Pepper Commission recommends government protection, by fiat, of specific individual and family dollar non-housing savings levels. Conversely, the AMA's Health Access America proposal emphasizes private protection of lifetime non-housing savings from Medicaid "spend-down" requirements. This proposal asks that individual or family non-housing savings be spent on an episode of long-term care only up to the point that remaining savings are equal to the level of maximum private LTC insurance benefits used, with public funds available after that point.

A WINDOW OF OPPORTUNITY

Federal and state budget pressures could curb potential tendencies to public spending on longterm care in the first half of this decade. A "window of opportunity" thus may be open to initiatives (including legislation) that encourage private long-term care financing, as witnessed by the AARP's foray into private insurance despite its stated support for a public program.

Simultaneously, with inexorable aging of the U.S. population, the clock is ticking on longterm care financing as an increasingly important national issue. Private programs may have to gain a foothold in the next few years if they are to establish the private side of a "public-private" LTC financing partnership.

**The market for private long-term care insurance sold by commercial health insurance companies continues to grow, with a tripling in the number of employer group plans in 1989 and an 18% increase in the number of longterm care policyholders (to more than 1.3 million) in the first half of 1989.*

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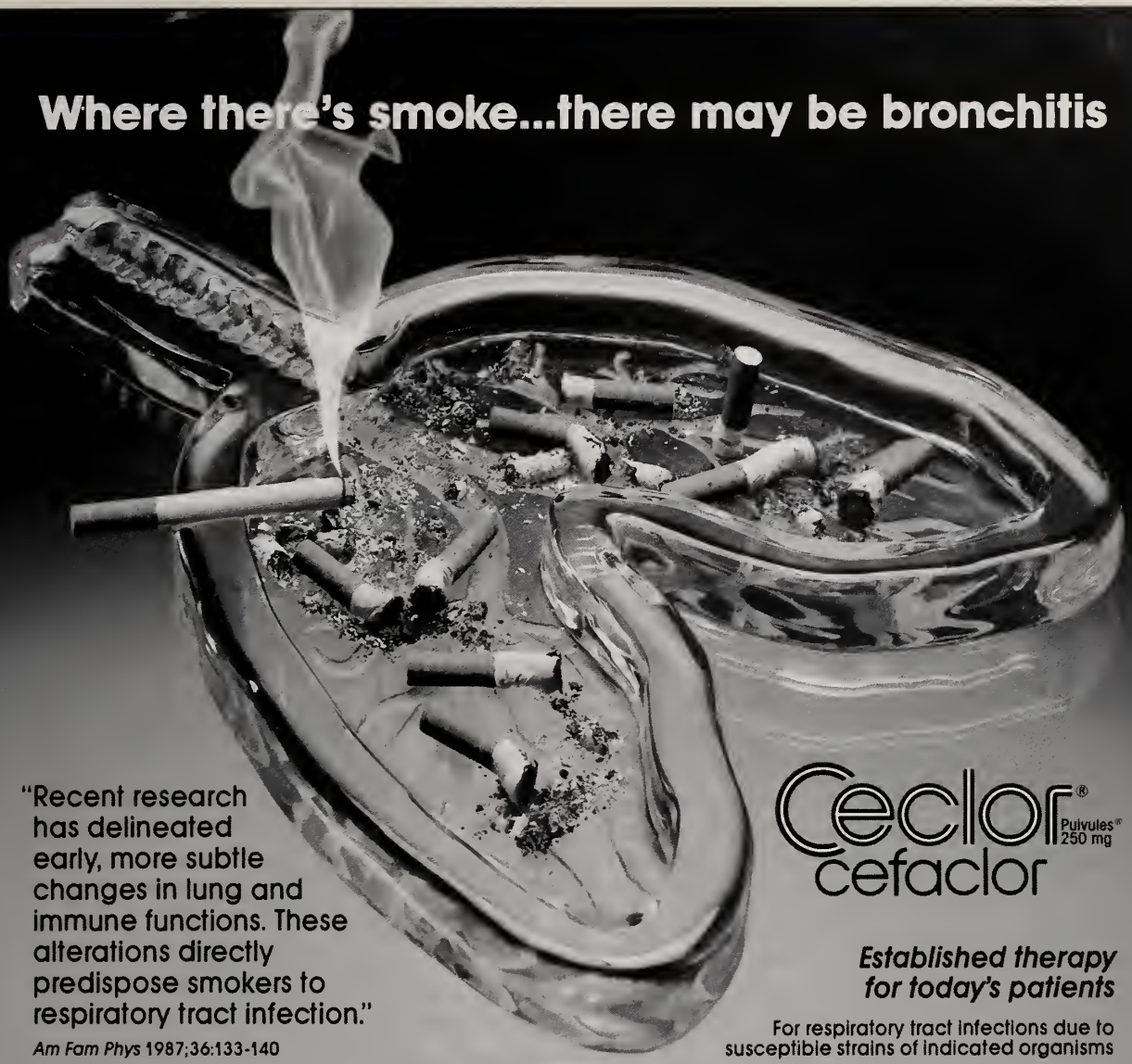

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Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
• Discontinue Ceclor in the event of allergic reactions to it.
• Prolonged use may result in overgrowth of non-susceptible organisms.
• Positive direct Coombs' tests have been reported during treatment with cephalosporins.
• Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
• Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
• Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
• Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of **serum-sickness-like** reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, **serum-sickness-like** reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
• Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
• Gastrointestinal (mostly diarrhea): 2.5%
• Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
• As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
• Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
• Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

Abnormalities in laboratory results of uncertain etiology
• Slight elevations in hepatic enzymes.
• Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
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A-MASA, President

Mobile Auxiliary Adopts A School

The problems existing in education today are of national concern. Eight years ago, a group of educational minded citizens conceived the idea of Mobile's ADOPT A SCHOOL PROGRAM to promote positive education reform using community involvement. The Mobile Chamber of Commerce directs the adoption of each school by a partner such as small and large business, organizations, and corporations.

In September 1989, the Chairman of the Chamber of Commerce of Mobile spoke to the Mobile Newcomer Luncheon about the problems in public education. With an overwhelming response, the Mobile County Medical Auxiliary, Medical Society and the Bay Area Physician Auxiliary adopted the Chickasaw Elementary School in May 1990.

Chickasaw Elementary School and its 37 teachers serve 665 students (37% white and 63% black) in kindergarten through fifth grade. Approximately 85% of the children receive free meals.

The students needed more attention and interest from caring adults. Many come from economically deprived homes, one-parent homes, and other problem situations. The faculty felt the need for support, supplies, and additional activities to reinforce the education process. The Mobile Auxiliary is striving to fill the gaps in the lives of these children by giving support and supplies to enrich the children's education.

This adoption, as are all others, is unique. The Mobile Auxiliary has adjusted the partnership to the needs, capabilities and desires of its membership. The following is a list of guidelines from the Chamber of Commerce adapted to the Chickasaw School.

Student Recognition—National Teacher Day and National Secretary Day are celebrated with flowers, casseroles and cakes provided by members of the auxiliary. The entire faculty is given a luncheon prepared by auxiliary at the end of the school year.

Instructional Involvement—The Hands on Tutor Program offers an opportunity each week for an auxiliary member to share time with a student or group. Auxiliary members spend twenty tutoring hours a week at the school. Many members utilize their special talents in this capacity. Area physicians serve as resource speakers for the classes.

Environmental Improvement—Combined efforts of the Medical Ísociety and Auxiliary members have resulted in cleaned, weeded, and newly replaced shrubs around the school building. Planted barrels of flowers have enhanced the landscape.

Financial Support—This year Mobile Auxiliary has budgeted $2,500 of its fund-raising proceeds to the school. Part of this money will go to purchase equipment for the science lab. $1,000 was designated for counselor materials. In addition, auxilians collect school supplies (crayons, scissors, glue, construction paper, tissues and other items) at general meetings and board meetings. They purchased an intercom, recovered the cot in the sick room, and donated $100 to the library in honor of Doctor's Day.

Community Awareness—Partnership activities have been highlighted in the local media. In the newsletter and at auxiliary meetings members are kept abreast of all activities. The principal has spoken at each general meeting about the partnership and what it has meant to the school. To stimulate PTA involvement, grocery store gift certificates will be

offered as prizes. The auxiliary also provides voter registration at the PTA meetings and will be working with School on the Fall Festival Fun-raiser. The members continue to collect for the school closet and stock the sick room with over the counter medicines.

At present, over 60 auxiliary members volunteer at the school in some capacity. The Adopt A School Project is a Standing Committee on the Executive Board of the Auxiliary. Its chairman is our liaison with the principal. This adoption has enabled auxiliary members to use their talents and skills to help children, feel a part of the local school system, and work with the Medical Society to improve the image of the physician in the community.

Mobile County Medical Auxiliary's partnership with Chickasaw Elementary is unique, but the opportunity is there for any auxiliary regardless of size or budget, to succeed in making a difference in the educational process of its community.

Submitted by
Linda A. Hall (William L.), President
Mobile County Medical Auxiliary

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Alabama Medicine – the monthly medical science and technology magazine of the association.

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Continuing Medical Education – MASA offers a dozen workshops around the state each year, and acts as the accreditation agency for several other CME programs. AMA has repeatedly referred to MASA's program as among the nation's best.

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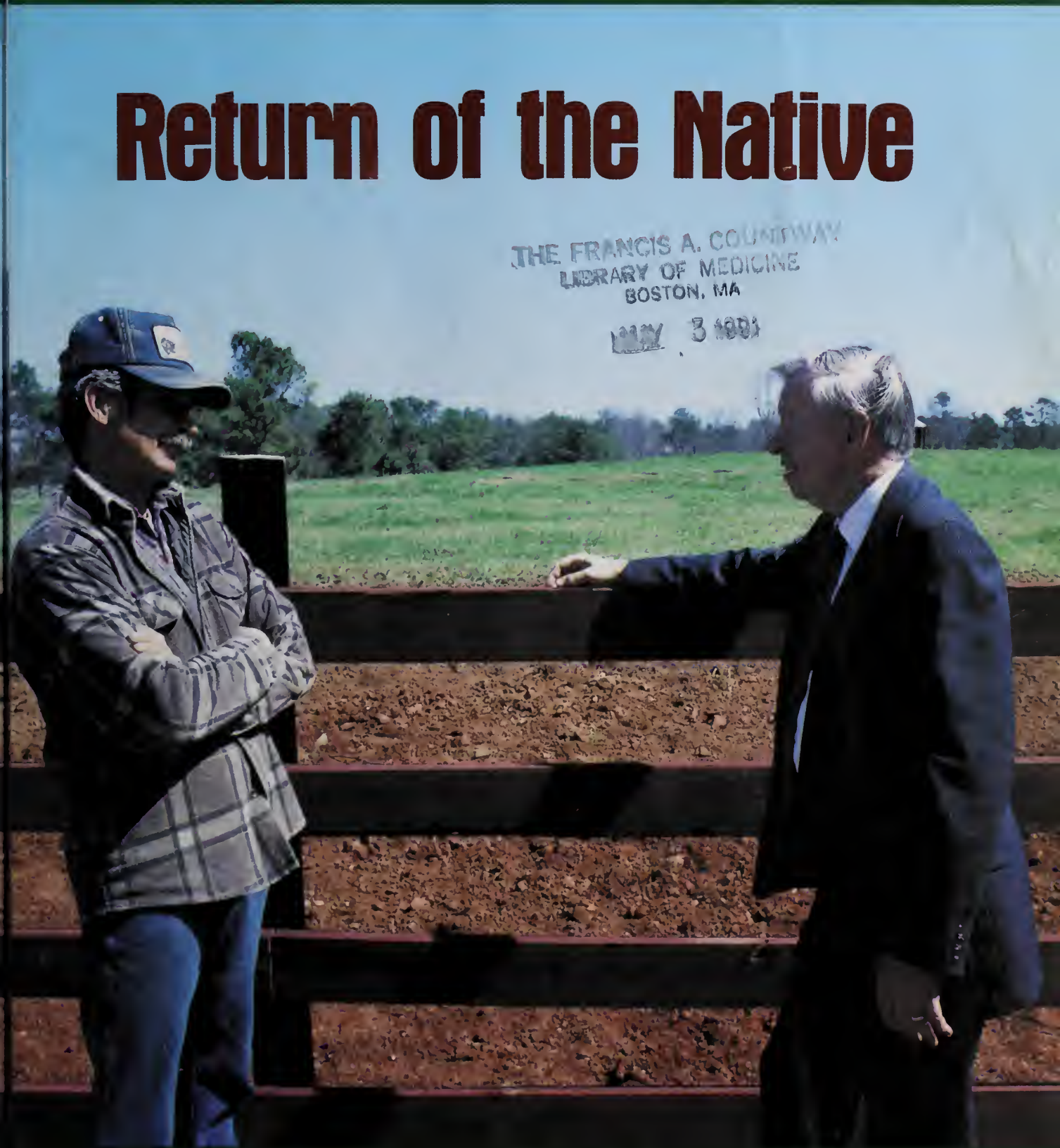

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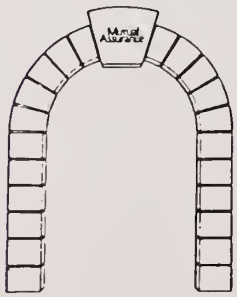

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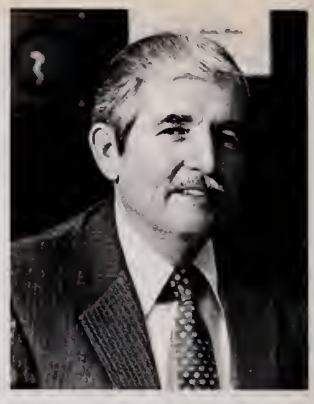
Established 1931, published by and for The Medical Association of the State of Alabama for open and responsible discussion of matters relevant to medicine and other fields of interest to physicians. Conclusions and opinions expressed herein are those of the individual authors.

In This Issue

Cover: Opelika Surgeon William D. Lazenby, M.D., right, drops by his cattle farm/home to confer with his farm manager, Bruce Randall. Dr. Lazenby, 1991-92 President of MASA, was born on a hard-scrabble, row-crop farm not far from this impressive Angus spread in Lee County. He returned home to practice, spent 10 years clearing land to fulfill the second part of a childhood dream, to own his own farm someday. The first part of that improbable dream was to be a physician. Page 6.

EXECUTIVE DIRECTOR



S. Lon Conner
Executive Director, MASA

The Richness of Diversity

As T. Riley Lumpkin, M.D., prepares to lay down the burdens of his presidential year, to be succeeded by William D. Lazenby, M.D., the thought occurred that the geographical dispersion of Association Presidents and other officers might be of interest.

Dr. Lumpkin, Tuscaloosa, first practiced in his home town of Tuskegee, then Enterprise. Dr. Lazenby of Opelika has practiced all his professional life in the county of his birth, Lee. Thus you have two presidents in a row from what might be called the state's heartland.

I have heard that there are member physicians who profess to believe that MASA is dominated by the big cities.

Checking a handy list of the last 34 presidents, who served for a third of a century, I found that the larger cities were of course heavily represented, as you might expect since these cities also contain very large fractions of the membership. Birmingham had 8 Presidents since 1958; Mobile, 7; Montgomery, 4; Huntsville, 3; but also represented were Anniston, Repton, Cullman, Gadsden, Fairfield, Decatur, Union Springs, Brewton, Greenville, Florence, Eufaula and Foley, plus the aforementioned Tuscaloosa and Opelika. Add Vice Presidents, and you have even more of a spread: the current Vice President is from Wedowee.

On the Board of Censors, in addition to the big four, you have representation from Fairfield, Anniston, Tuskegee, Fort Payne, Moulton, Dothan and Fayette.

Officers of the Association may seem to speak as one voice, but I can assure you that many voices and points of view must be accommodated to produce the consensus. Just as every region is heard, so is every specialty, whether explicitly represented on the Board or not.

Officers of the Association may seem to speak as one voice, but I can assure you that many voices and points of view must be accommodated to produce the consensus. Just as every region is heard, so is every specialty, whether explicitly represented on the Board or not.

Your Officers and Censors are acutely aware that they represent a pluralistic profession of many interests and focal points. Every effort is made in every deliberation to balance the interests of all member physicians without fear or favor.

The global village may not yet be an apt description of the world, but it certainly exists on a state scale in MASA.

Your Presidents have brought to the office widely varying personalities and approaches, reflecting the same diversity in the membership. No "typical" MASA president is evident in the list I am looking at.

Take the cases of the outgoing President, Dr. Lumpkin, of Tuscaloosa, and the Immediate Past

President, Burt F. Taylor, M.D., of Mobile.

Dr. Taylor thrives on controversy as a useful form of problem-solving; Dr. Lumpkin is more conciliatory by nature and can be fairly described as a peacemaker. The Association needs both types, and all the other types that come to mind, because it is only out of this melding of contrary views that there can be generated a synthesis that speaks for all.

Over the past half-century there have been progressives on the Board of Censors as well as traditionalists. Both are needed if the Association is to perform its ecumenical function. The great historian and philosopher Will Durant was asked near the end of his labors and his life what he had learned from chronicling man's attempt to find order and harmony in his affairs. Here is one of his answers:

"So the conservative who resists change is as valuable as the radical who proposes it—perhaps as much more valuable as roots are more vital than grafts. It is good that new ideas should be heard, for the sake of the few that can be used; but it is also good that new ideas should be compelled to go through the mill of objection, opposition, and contumely; this is the trial heat which innovations must survive before being allowed to enter the human race.

"It is good that the old should resist the young, and that the young should prod the old; out of this tension, as out of the strife of the sexes and the classes, comes a creative tensile strength, a stimulated development, a secret and basic unity and movement of the whole."

But will this diversity of voices and views assure all constituents that they will always be pleased with the actions of their chosen leaders? Of course not. Mr. Durant again:

"...Perhaps we chould define what progress means to us. If it means increase in happiness, its case is lost almost at first sight. Our capacity for fretting is endless and no matter how many difficulties we surmount, how many ideals we realize, we shall always find an excuse for being magnificently miserable..."

Mr. Durant was describing what he had seen in every civilization since time began. Thus his observations may be said to be timeless.

Fretting and finding fault, as he pointed out, are sacred privileges more enjoyed under freedom than under tyranny. And MASA is a microcosm, in that regard, of both the state and the nation.

PRESIDENT'S PAGE

T. Riley Lumpkin, M.D.
President, MASA

Ties That Bind

When we contemplate the myriad of problems confronting the practicing physicians today, we have only to look around to see that all health care providers are in the same quagmire of alligators up to the proverbial anatomical spot.

Do the problems of "other physicians," such as the ophthalmologists struggling with the larger number of optometrists, play a part in "our" problems? When we look toward the governmental arena we see an ever-growing jungle of entanglements, exacerbated every time Congress meets and concocts solutions. Are the problems the same for each and every specialty when it faces in the same direction as another group?

Let's look at one group, the opthalmologists, who number approximately 140 members in the state. Compare their number to that of optometrists, who have probably four to six times as many.

When the eye physician has a problem, it should be all of organized medicine's problem at the same time. Members of Congress, such as Pete Stark, love to separate our physician groups into smaller divisions in a "divide and conquer" mentality. And we tend to go along with this since the "eye docs" have their own problems and these specialized problems don't really concern those in another specialty group, do they?

This is the type of disorganization we do not need. The Bible tells us that centuries ago every Kingdom divided against itself was brought to desolation; and every city or house divided against itself would not stand.

This theme was utilized very well in Lincoln's address at Gettysburg, as he tried to keep the nation together in strength during a terrible war of brother against brother.

Today we need to heed that advice and apply it to our present circumstances. We need to work together by understandable communication. The nurses and physicians need to become once again involved team players to provide patients the best possible medical care under any condition.

Communication should be strengthened between the Society of Internal Medicine and the College of Physicians. The radiologists need to exchange ideas with their diagnostic and therapeutic divisions and assure that the newer modalities work for our patients. Academic radiologists, radio-isotope and nuclear medicine physicians should all work together with each of the other groups in an ongoing dialogue. Then the agenda of continuing problems could be understood by all.

The general surgeons and the thoracic surgeons should meet with each other, know their mutual and separate problems and lend support for issues common to all.

The primary care physicians, internists, family physicians, obstetrician/gynecologists, as well as pediatricians, should cooperatively exchange ideas, discuss problems and try to make our federation of medicine a reality. In their exchange of ideas, problems and practices all would keep up, be more informed and consequently better physicians and better care-givers.

All the subspecialty groups could benefit from joint meetings to discuss ideas, problems and common interests. To be sure, the artificial climate created by manipulators of the health care market, in both the public and private sections, has created tensions, hurt feelings, and occasionally even hostility in our ranks.

But the ties that bind us are far stronger than the fleeting issues that divide us.

Benjamin Franklin said it all on the subject when, on signing the Declaration of Independence July 4, 1776, he turned to John Hancock and remarked:

"We must all hang together or assuredly we shall all hang separately."

Return of the Native

William H. McDonald

Thomas Wolfe to the contrary notwithstanding, the 1991-92 President of MASA is living proof that you can go home again.

William D. Lazenby, M.D., Opelika surgeon, practices a few miles from the Lee County farm home where he was born in 1931 into a family of seven children.

The dream of medicine was born there also, some time around the sixth or seventh grade, certainly before he reached Beauregard High School. It was an improbable ambition at that time and in that place.

The odds were heavily against him; the dream itself was without any of the customary substance: He had no physician in his family; he knew of none he could have called a role model; he had not read an inspirational book on medicine. In short, it was a true vocation in the old sense.

Certainly the financial opportunity was nil. The family's row-cropping was largely subsistence farming. His father did carpentry work in town to make ends meet, when they met at all.

When young Bill Lazenby, unaccountably, received his call for medicine, it came on the outer banks of the Great Depression, in the early years of World War II. The term "hard-scrabble farming" was coined in that era. The dream might never had survived had it not been the deus ex machina intervention of an uncle.

Everyone in the Lazenby family worked on the farm. When young Bill Lazenby, unaccountably, received his call for medicine, it came on the outer banks of the Great Depression, in the early years of World War II. The term "hard-scrabble farming" was coined in that era.

Out of The Blue

The dream might never had survived had it not been the *deus ex machina* intervention of an uncle in West Point, Georgia, a man of some means who, with his wife, had been quietly watching the boy's progress at Auburn, where he had managed to pay his own way.

They knew of his dream, but it came as a total surprise to him when they invited him to dinner in his senior year. Out of the blue they said they would advance him whatever funds he needed to go to medical school.

They would not give it to him, they cautioned. Being hardworking people themselves, they felt that so great a gift would not be in his best interest. It would be a loan, at 3% interest.

These were the days when an older value system obtained, one totally different from today's fastbuck society of plastic money and enormous debt, public and private. Money was scarcer then and thus more precious for the great works it could bring to pass.

After completion of college at Auburn, where he was President of the Pre-Med Honor Society; after graduation from Emory University Medical School in 1957, where he was President of the Student American Medical Association; after internship and surgical residency at Atlanta's Grady Hospital—after all this, he still owed the grand total of just $10,000, plus 3%. (But, for the record, medical school tuition then was $800 per year.)

He married the former Peggy Shugart of Cleveland, Tennessee, after his second year at Emory. She worked while he studied. Their first child was born while they were in Atlanta. Although Dr.

Lazenby was not born to a medical family or a medical tradition, he and Peggy seemed to have started one:

✧ Their daughter, Audrey, is a GI pathologist at Johns Hopkins in Baltimore.

✧ Their son, Douglas, is a senior surgical resident at Cornell Medical College in New York City, and already has children who may themselves carry on the brand-new family medical tradition.

✧ Their son, Allen, is a surgical resident at M.D. Anderson Hospital in Houston.

✧ Allen's wife, Shirley Jones Lazenby, M.D., is a senior surgical resident at Baylor in Houston.

If anyone keeps book on population explosions in the medical profession, the Lazenby family is one to watch: a quadrupling in a single generation.

The three Lazenby children also grew up on a farm—they spent some 10 years clearing land and other work for what is now the Lazenby cattle farm, third largest Angus herd in the state. (It missed second place last year by just one head. No. 1 Angus breeder is former MASA President Ronald E. Henderson, M.D., of Birmingham, who returned to *his* Autauga County roots as well, but only to establish Twin Valley Farm, not to practice.)

Before their medical school days, the Lazenby boys participated in 4-H-type cattle shows. Their old rooms at the Opelika home, which they left a dozen years ago, are still bedizened with their ribbons and other awards.

Mrs. Lazenby is a realtor and has made the "Million Dollar" honor role five years.

Dr. Lazenby has little time for running his farm, of course, but has a first-rate farm manager on the job (see cover). From the breakfast nook in his antique-laden home, however, Dr. Lazenby can look up from whatever work he has before him, down the long sloping hill to the pond and the rising hillside beyond, neatly festooned with black Angus grazing. Sometimes, for days and weeks on end, that is about as close as his busy practice and civic work will per-

mit him to get to what is, by his admission, a kind of nostalgia trip. But it is also profitable, a well-run business, not a hobby.

When he was growing up on his father's farm, there were only a few of the obligatory, nondescript cows every farm had. They produced no income. Somewhere in his relentless drive to becoming a physician, he seems to have tucked a dream within a dream—to own a farm someday, and make it pay.

> ***"I never turn down a patient who needs me. It's just my policy, that's all. It should be every doctor's policy."***

Dr. Lazenby has the deserved reputation in his county and elsewhere in his five-county catchment (population, about 250,000) of never turning down a patient. Referring physicians know, without asking, that in return for their sending him patients who can pay, he also provides the same high level of care to their medically indigent patients.

In his laconic, reluctant style, Dr. Lazenby's only comment is: "I never turn down a patient who needs me. It's just my policy, that's all. It should be every doctor's policy."

His surgical subspecialty is breast disease, notably breast cancer. In addition to staying current in the latest procedures, Dr. Lazenby has also gone off for specialized training in imaging technology, thus to sharpen his diagnostic skills.

CME In South Africa

Early on, in fact, he dedicated himself to continuing medical education. He returned to Opelika in 1964 to practice with this understanding with his first partner. In 1970 he took a three-month sabbatical in Cape Town, South Africa, to study at the hospital made famous by Dr. Christian Bernard (but not for that reason). He scrubbed with the Cape Town doctors, made rounds, joined their discussions.

His wife and children went along too, the children attending school in Cape Town. While there, Dr. Lazenby found time to attend Rotary Club meetings, thus preserving a seven-year perfect attendance record. (He has recently resigned after 25 years because of the pressure of work. He could no longer attend every meeting; Rotary frowns on absenteeism, even with the best excuses.)

Why South Africa?

"We wanted to take the sabbatical in winter, when our practice was least busy. And we wanted a warm, English-speaking climate. My previous chief at Grady in Atlanta had good friends at Pretoria and Cape Town."

Ergo, Cape Town it was.

Dr. Lazenby refers to that hegira as a "working holiday." There have been others, but this was the most memorable for the family.

Dr. Lazenby's record of community involvement reads like a model of what organized medicine has long espoused. He has served the Chamber of Commerce as board member and president. In 1985, Opelika named him its Outstanding Citizen of the Year. He has been a member of the Board of Directors of the Farmers National Bank since 1972. He is a member of the board of directors of the East Alabama Medical Center and, over the years, has served on every major committee and held almost every office on the medical staff.

Physician Recruiter

He is a builder. Dr. Lazenby was one of the prime movers in the establishment and continued expansion of the Medical Arts Center of East Alabama. When he returned to practice in his home county in 1964, there were only 12 physicians there, all general practitioners. He spent many hours over the years recruiting topflight specialists and arranging for their prepaid visits to the area. Now there are 50 doctors in the Medical Arts Center, about twice that total in the county. The modern, well-appointed hospital has 334 beds, compared to 110 in 1964. A $12 million expansion in outpatient facilities is underway, and the area boasts just about every medical service except

> ***Dr. Lazenby's record of community involvement reads like a model of what organized medicine has long espoused.***

neonatology, Dr. Lazenby says with justifiable pride, including open heart surgery.

He was also one of the founders of the Surgical Clinic of East Alabama and has been president of the Medical Arts Center since its inception in 1968.

His Association work began in the early 1970s with service on the Council of Medical Education. Elected to the Board of Censors in 1981 as Censor-at-large, he has served as Vice Chairman of the Board before his election as President-elect in 1990. Since 1981, he has served simultaneously on the Board of Medical Examiners and the State Committee of Public Health.

Dr. Lazenby does not waste or mince words. The ratio of his listening time to his talking time is on the order of 100 to 1, maybe higher. (The world might be a better place if this were the international norm instead of the reverse ratio.) His comments are brief and cogent. He has a keen analytical mind, which has been detected by many outside medicine and harnessed for their own use—in community affairs, banking, business and administration—to say nothing of the macro- and micro-economics of the cattle industry, with its notorious pitfalls, vicissitudes and imponderables.

He has a keen analytical mind, which has been detected by many outside medicine and harnessed for their own use.

All of which has eminently prepared Dr. Lazenby to serve as your president at a time when all the above pressures, and more, are competing for the attention of organized medicine.

Heat Illness in Football Players In Alabama

*Kennon Francis, Ph.D.**
Ronald Feinstein, M.D
Joel Brasher, B.S.

Abstract

Fall football practice in Alabama generally begins during the later months of summer during some of the hottest periods of the year. Exercise during these periods significantly exposes young athletes to risks of heat illness and possible death and is made even more dangerous while training in full football uniform. In order to delineate specific guidelines to reduce the risk of heat illness, optimal practice times and fluid replacement schedules were studied for the state of Alabama. A review of five-year climatological data (1984 -1988) for the months of August and September were conducted for four geographic regions of the state. A study of the data revealed that there were no environmental combinations at any time periods during the month of August for any locale in the state that would be considered safe for outdoors practice in full uniform. Similar results were recorded for September for cities in the south-central portion of the state. There were only two time periods during which players could practice outdoor with extreme caution. The periods were at 0900 and 1800 hrs in the north-central and northern portions of the state. If practice is conducted outdoors in Alabama during August and September, copious amounts of water should be consumed prior to practice; frequent water breaks should be scheduled throughout practice at which time each player should consume 150 - 200 ml; and the player should be carefully monitored for signs of heat illness.

With only an approximate 5° F tolerance against significant damage occurring in deep body temperature, the added heat stress imposed by exercise in a hot, humid environment can easily result in exertional hyperthermia and/or dehydration.

Introduction

Football practice in high schools and colleges in most sections of Alabama begins during the early weeks of August. During this period the weather is likely to be hot and humid. Practice with players wearing a full uniform often follows within a week on some of the hottest days of summer.

Football players are especially vulnerable to problems caused by dehydration during this time. Not only are players usually of greater than average bulk, which requires an increase production of sweat to maintain a normal and safe core temperature, but the protective equipment which covers over 50% of the total body surface provides an insulating effect that impairs sweat evaporation. With only an approximate 5° F tolerance against significant damage occurring in deep body temperature, the added heat stress imposed by exercise in a hot, humid environment can easily result in exertional hyperthermia and/or dehydration[1,2]. Consequences vary from temporary heat cramps to fatal heat stroke.

The American College Football Association (ACFA) is the only athletic organization that has kept records of football-related heat stroke deaths. Between 1965 and 1988, a total of 81 heat related deaths have been reported in the United States as a

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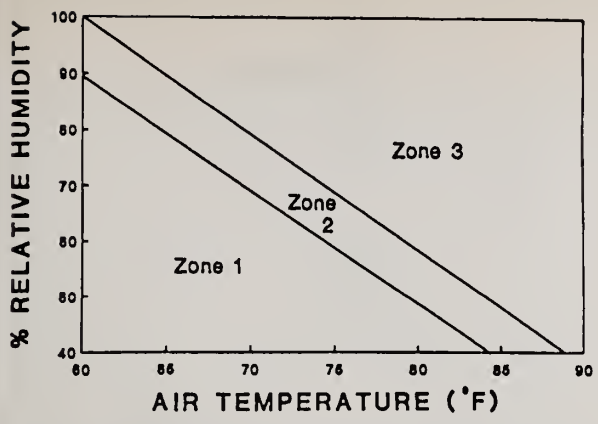

Figure 1. Football Weather Guide of Fox and Mathewss for the prevention of heat illness. The combination of relative humidity and air temperature in Zone 1 can be considered safe; for Zone 2, water supplied ad libitum and players observed for signs of heat illness; and for Zone 3, extreme caution should be observed for players working in a football uniform.

result of practicing football during late months of summer and early fall[3]. Additionally it is probable that there has been a significant number of unrecognized heat-related illnesses among young players over the last few decades.

The ACFA provides general suggestions and precautions for decreasing the risk of heat illness. These include the scheduling of practice sessions during the periods of the day during August and September when the conditions are less humid and hot and secondly, the ingestion of water on a periodic basis during extreme periods of perspiration.

Whereas the suggestions are practical, they are general, nonspecific directions that are presented without regards for environmental extremes. The present study was undertaken to delineate more specific guidelines for the optimal times for football practice and fluid replacement for the state of Alabama during the months of August and September. Five-year climatological data for the years 1984 through 1988 for the state of Alabama was utilized in this study.

There were no environmental combinations at any of the time periods reported for the month of August for any locale in the state that would be considered safe for outdoors practice in full uniform.

Method

The state of Alabama was divided into north, north central, south central and southern geographic regions in which national meteorological stations were located. Five-year climatological data (1984 through 1988) for the months of August and September was obtained from the National Oceanic and Atmospheric Administration[4] for representative cities in each region of the state.

These cities included Hunstville (north), Birmingham (north central), Montgomery (south central) and Mobile (south). Relative humidity and air temperature recorded at 3 hour intervals for the five year period were averaged for each city. The 3 hour intervals began at 0600 and ended at 2100 hours.

The Football Weather Guide (FWG) of Fox and Mathews[5] shown in Figure 1 was used for determination of relative severity of the recorded climatic conditions. The FWG was constructed from weather data gathered from heat-related studies in which heat stroke fatalities were recorded. Any combination of environmental conditions in Zone 1 would be considered "safe" with no precautions necessary. Zone 2 represents a "caution" zone in which practice can take place but the intensity level should be decreased and players should be carefully observed for symptoms of heat illness including profuse sweating, nausea, headache or lack of coordination.

Practice in full uniform should be postponed or moved indoors for environmental conditions constituting Zone 3 or the "danger" zone. If practice is performed outdoors under these conditions, they should be of lower intensity with players wearing only shorts. Players in this zone should also be carefully observed like those exercising in zone 2 for symptoms of heat illness.

Results

Plots of the average relative humidity verses air temperature for the month of August at three hour intervals starting with 0600 hours are shown Figure 2 superimposed on the FWG. Values for all cities at all time interval were located in the danger zone (Zone 3). Similar plots for the month of September (Figure 3) reveal analogous results for cities of Montgomery southward. There were two time periods that were located in the caution zone (Zone 2) in the north and north central cities of Birmingham and Hunstville. These were 0900 and 1800 for the city of Birmingham and 1800 for the city of Huntsville.

Discussion

The extreme humidity and temperature data shown

AUGUST

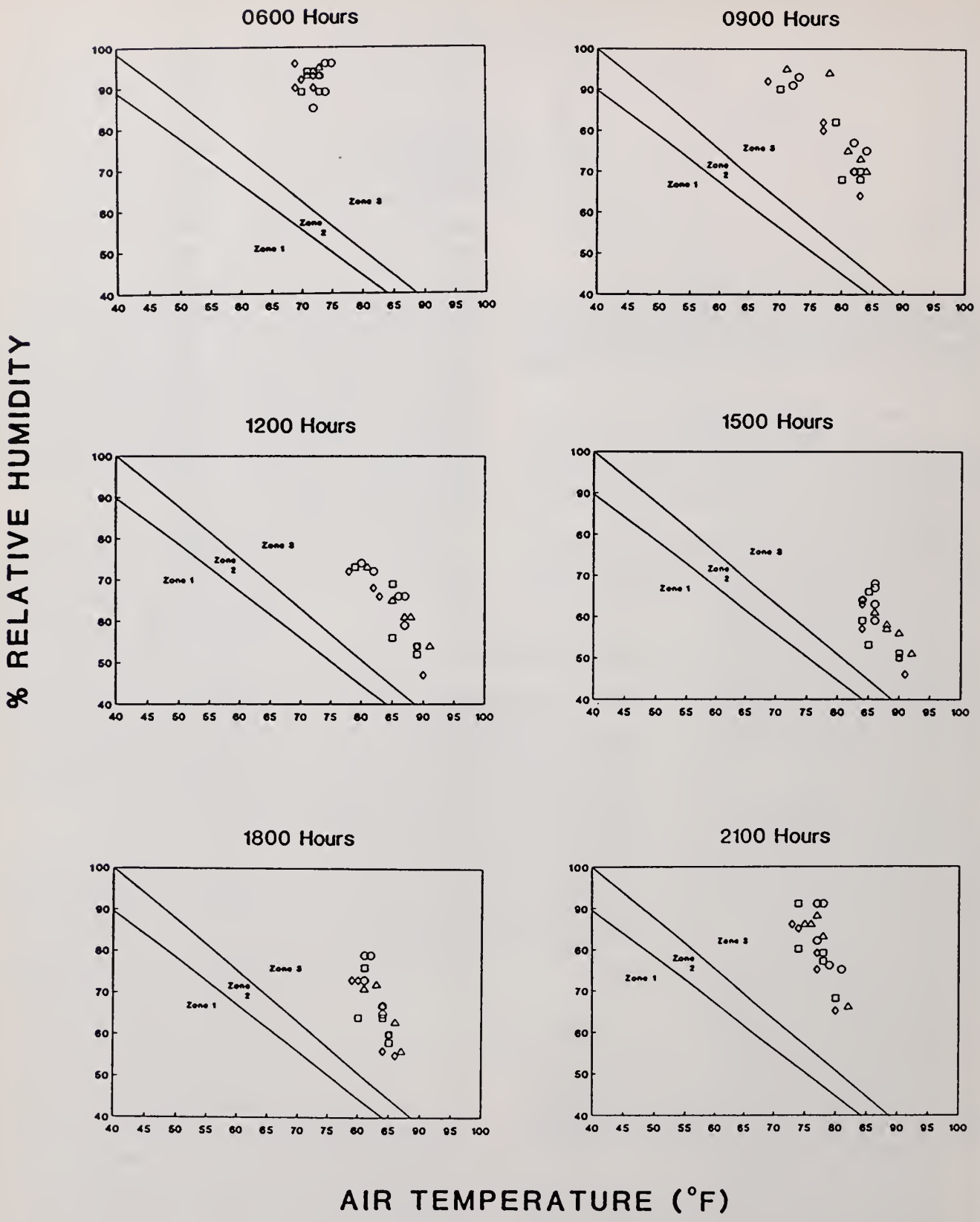

Figure 2. Five year average of environmental conditions at three hour intervals for the month of August in Alabama superimposed on the Football Weather Guide. ◆ = Huntsville; ■ = Birmingham; ● = Montgomery; ▲ = Mobile

SEPTEMBER

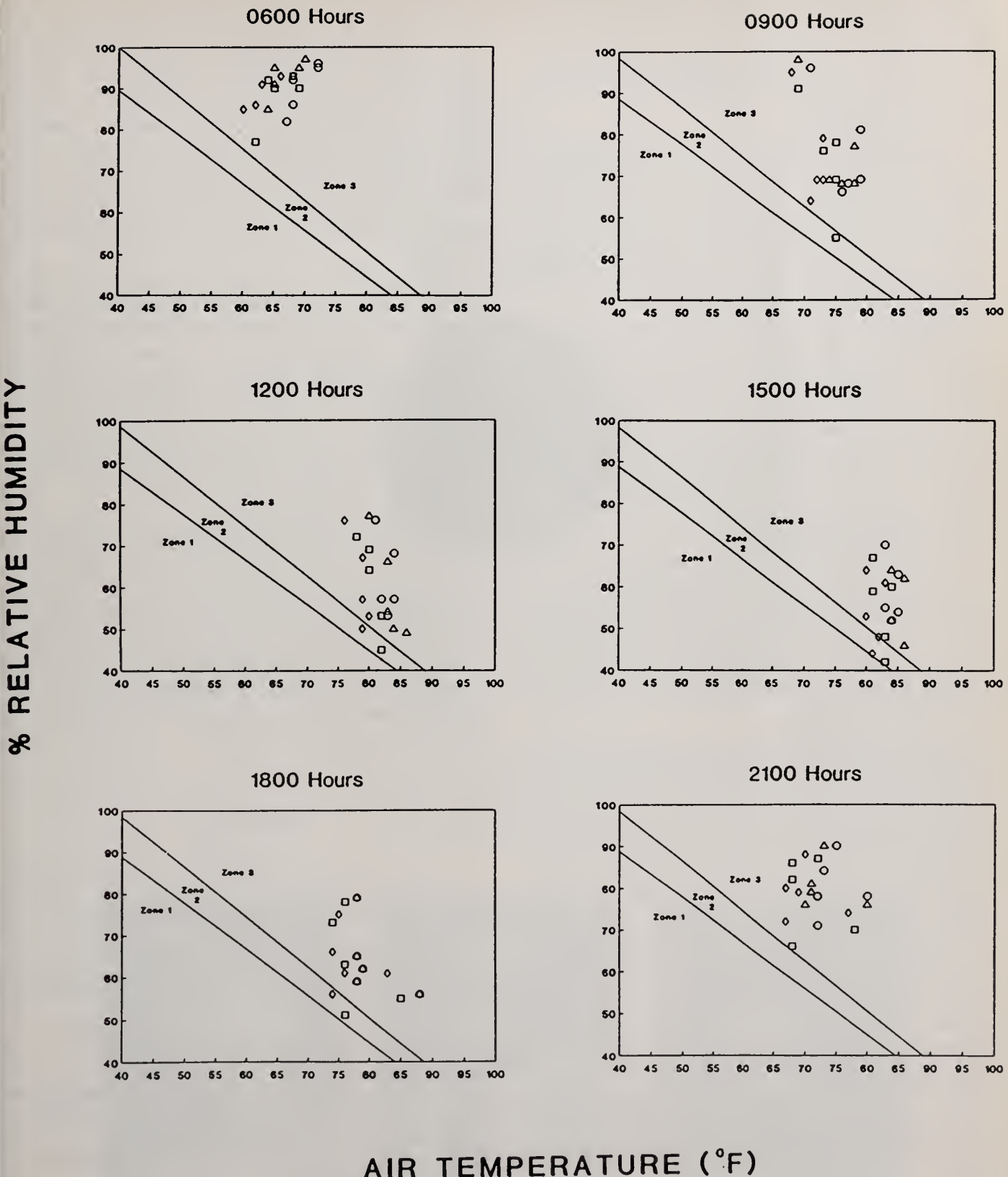

Figure 3. Five year average of environmental conditions at three hour intervals for the month of September in Alabama superimposed on the Football Weather Guide. ◆ = Huntsville; ■ = Birmingham; ● = Montgomery; ▲ = Mobile

in Figure 2 and 3 clearly indicate that an athlete faces serious heat dissipation problems when exercising in Alabama in August and September. There were no environmental combinations at any of the time periods reported for the month of August for any locale in the state that would be considered safe for outdoors practice in full uniform.

In actuality, the only times that were outside of the danger zone (Zone 3) occurred during September at 0900 and 1800 for the city of Birmingham and 1800 for the city of Hunstville. These time periods were situated in the caution zone (Zone 2) which suggest intense scrutiny of the player and diminished intensity of exercise should be rigorously enforced.

Regardless of the state of physical conditioning or acclimatization to working in hot humid environments, the football athlete is at high risk of developing heat illness in these early months of practice because of the imperviousness of the plastic protective pads of the football uniform. The protective equipment covers over 50% of the body surface area which makes evaporation from sweat from underlying surfaces virtually impossible[6,7].

The football uniform causes a marked reduction in efficiency of the evaporative mechanism at the expense of dehydration. Fox and Mathews[6] have shown that whereas sweating is twice as great, the amount of sweat evaporated during exercise in full uniform is only 30 - 40% of the sweat evaporated in players dressed in shorts.

In order to reduce the hazard of heat illness and possible death during early season football practice in environmental conditions as found in zone 3, practice should be postponed, moved to indoors or canceled[3,5]. If this is not feasible, then extreme preventative measures must be adopted. The most important of these measures is the consumption of adequate water both before and during practice.

Ingestion of supplementary water or hyper-hydration prior to exercise for individuals exercising in conditions of zone 2 or 3 provides some protection because it increases sweating during exercise and this has been shown to significantly offset increases in core temperature[8]. This procedure, however, does not replace the need for continual fluid replacement and is not as effective in maintaining thermal balance as consuming water on a periodic basis during the exercise[9].

It is important to provide frequent water breaks because in demanding activities like football, matching fluid loss with fluid intake may be virtually impossible because only about 800 ml of fluid can be emptied from the stomach each hour during vigorous exercise[10].

Furthermore, acute discomfort commonly arises when attempting to drink large volumes of fluid during exercise. Therefore more frequent water breaks during which time the player consumes 150 200 ml should be arranged during practice sessions conducted under environmental conditions of zone 2 or 3. Even with this optimal replacement schedule, the fluid consumed may be insufficient to match the sweat loss induced by the activity and environmental conditions.

For example, Myers and Francis[12] reported that consumption of 150 ml every 15 minutes was insufficient to match a sweat losses of 1.5 - 2 liters per hour observed in football players in Alabama. In addition, to the inadequacies of fluid consumption caused by the discomfort of ingestion of large quantities of water at any one time period, the thirst mechanism itself is inadequate to stimulate complete rehydration during heavy sweat losses even though frequent water breaks are scheduled[10,11].

Therefore, the optimal guidelines for reducing the risk for heat illness for football players practicing in environmental conditions of zone 2 or 3 should include: drinking copious amounts of water prior to practice; scheduling frequent water breaks throughout practice at which time player should consume 150 - 200 ml; and the careful monitoring of players for signs of heat illness even though there appears to be adequate water.

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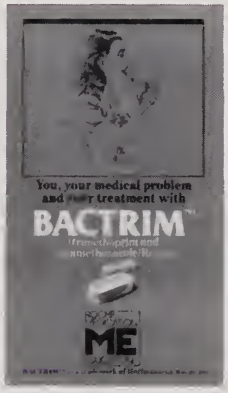

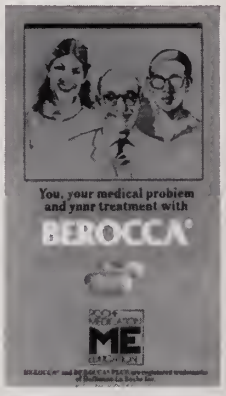

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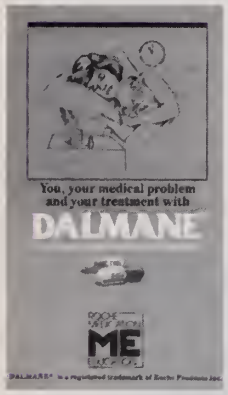

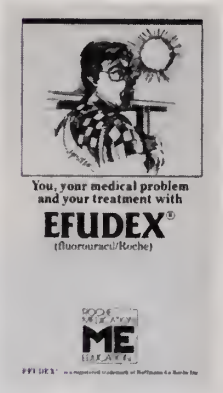

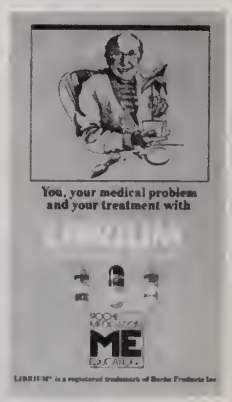

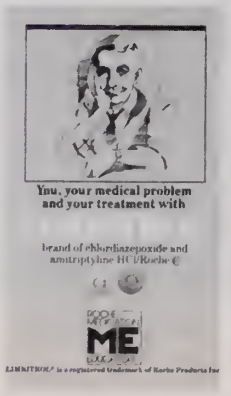

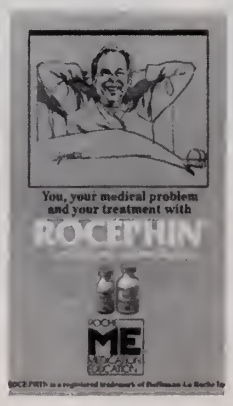

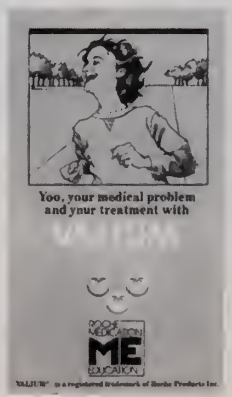

The Fable Of The Federally Financed Furniture Factories

*Stanley D. Hand, M.D.**

Once upon a time in a country far, far away and a time long past there lived a people who enjoyed freedom above all else, a freedom that few people have ever known. Now this land was a land of milk and honey, blessed with seemingly unlimited resources and the people prospered like no other people on earth. People came from all over the world to seek their fortune in this great land, but all was not perfect.

There were among the people some who were old, some who were poor, some sick or disabled, and some who would not work and did not enjoy all of the benefits of the great land. Now this land was run by men who thought that all people should have all of the things that they needed, regardless of their age or ability to pay for them, so they started looking around. In their infinite wisdom the leaders looked all over the land and saw that many of those who were old, disabled, unemployed and poor did not have good and adequate furniture; no beds to sleep on, chairs to sit in , or tables to eat on. So they pondered and discussed the conditions of these people for years. Something should be done for these people so the leaders came up with a would be answer to the problems: tax everybody who is productive and buy furniture for those people who qualify for Government aid.

The leaders then told all of the old, the poor, the disabled, and the unemployed that the government would provide them with all of the best and most expensive furniture free anytime they needed it. Those people who really needed furniture did receive it and did appreciate it, but there were those who, being greedy, took advantage of the system. Some people thought that since it was free, they should take two, three, or more. There were also those who thought that if they could get furniture free they should get it for their friends, relatives, and neighbors so they got furniture and gave it away.

Now the furniture companies were all happy because the great, unlimited, and infinite government was paying for all of the furniture needed by the old, disabled, poor and unemployed. The furniture factories had to be enlarged and production increased. They had to hire more employees to make furniture and more people to fill out all of the paper work mandated by government regulations. Also, people who had never made furniture and knew noting about making furniture saw all of the money to be made from the federally financed furniture sales, so they went into the furniture business. For a period of time all those making the furniture and those receiving it were happy, but everybody did not live happily ever after.

The leaders then told all of the old, the poor, the disabled, and the unemployed that the government would provide them with all of the best and most expensive furniture free anytime they needed it. Those people who really needed furniture did receive it and did appreciate it, but there were those who, being greedy, took advantage of the system.

After many years there were more and more old people, more disabled, more poor people, more unemployed, and more people who chose not to work. Everybody wanted to get free furniture so they were willing to make false statements to get their share. Too, the cost of furniture continued to go up and up and most of the furniture manufactures thought that since the government was paying the bill they should charge as much as they could get. With the ever increasing cost of furniture, the over utilization of the recipients and the over charging by the manufactures or providers, the cost of the program became prohibited. It was about to break the country.

*Athens, Alabama

Something had to be done.

All of the great and smart leaders got together to decide what could be done. The unlimited and infinite funds of the great country were running out; they were finite. The leaders decided that a chair is a chair regardless of size, shape, or function. The same held true for beds, tables, and other pieces of furniture, so they decided to pay a flat rate for chairs, for tables, and for beds. In many cases the amount paid by the government would not cover the cost of producing the furniture so the furniture companies had to cut back on the quality of their furniture. They made the chair legs smaller, the cushions thinner and the cloth cheaper. The furniture was not as good and became harder and harder to find.

The great leaders saw what was happening so they put in "guide lines" and established "quality controls" and passed new rules and regulations that ran the cost of furniture even higher.

The great leaders saw what was happening so they put in "guide lines' and established "quality controls" and passed new rules and regulations that ran the cost of furniture even higher. To enforce these new rules, regulations, and guide-lines the government had to hire inspectors and quality assurance organizations to find the manufacturers that violated them. As would be expected some furniture companies began losing money and had to let employees go and reduce the size of their operations. Many even closed their doors and went out of business.

And what happened to the old people, the disabled, the poor and the unemployed that the leaders wanted to help? They increased in number but received less furniture at a higher cost. The cost of furniture had gone up 10 to 15 times in price and the quality was not as good and there was less furniture being manufactured. The leaders then stepped in and tried to correct the situation by rationing furniture to everybody. This too was a failure. Now those great leaders are considering a national furniture insurance program to buy furniture for everybody, rich or poor.

If you think this story to be completely and totally ridiculous, you are absolutely correct, but, if you want to see and understand what has happened to the health care delivery system in the past two decades, what is happening to the system today, and what is about to happen to it in the near future, reread the above fable and insert "health care" for furniture. That is really what has happened, and if we continue down the road that we are now on it will lead us to total governmental control of the health care system. Yes, we will have "socialized" medicine no matter what you call it. How will it all end?

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Acute Renal Failure Secondary to Fecal Impaction

*William C. Robbins, M.D.**
Lori Kaufman, M.D.
Steve Rolfes, BS

ABSTRACT

A 23-year-old man presented with a massive fecal impaction, and was subsequently found to be in renal failure along with the presence of intraperitoneal free air on x-ray. Following disimpaction, the renal failure rapidly resolved and exploratory laporotomy revealed no colonic perforations. Obstructive renal failure resulting from fecal impaction is a rare but reported complication. In this report acute renal failure is attributed to severe fecal impaction.

Periodic constipation is a clinically benign syndrome; however, chronic constipation can led to serious complications such as obstructive impaction, development of megacolon and spontaneous perforations. In this report, a patient is presented with renal failure secondary to fecal impaction induced urinary outflow obstruction. There are ten previously reported cases of impaction induced renal failure in the world literature.[1-5] The patient upon disimpaction had a post-obstructive diuresis with normalization of renal function. Free peritoneal air found on the initial abdominal x-ray led to laporotomy for assessment of a possible colonic perforation. However, no perforation was found, a sigmoidectomy and diverting colostomy was performed to prevent further complications.

CASE REPORT

A 23-year-old retarded and blind male was admitted to Huntsville Hospital November 27, 1988 for evaluation of diffuse abdominal pain and bloating. The patient had been in his usual state of health prior to these complaints; however since childhood, he has required daily cathartics for chronic constipation. The patient's mother noted a three day history of increasing abdominal girth and reported a one day history of fever. There was no history of nausea, vomiting, dysuria, flank pain or rigors.

Physical examination revealed a young black male with a protuberant abdomen. The patient's vital signs at the time of admission were: pulse 110/min, blood pressure 118/72, respiration 16/min and temperature 39° C.

On palpation of the abdomen, there was no localized tenderness or rebound. Bowel sounds were present but hypoactive. Rectal examination revealed a large impaction.

Laboratory studies disclosed the following values: sodium, 131 mmol/L; potassium, 4.4 mmol/L; chloride, 93 mmol/L; creatinine, 12.6 mg/dℓ; serum urea nitrogen, 120 mg/dℓ of urea; hematocrit, 40%; white blood cell count, 16,000/10^3 with a normal differential. Arterial Blood Gas: pH, 7.33; PCO_2, 29; PO_2, 74. Urine electrolytes were: sodium 20 mmol/L and osomolality 482 mosm. Chest x-ray was normal and abdominal x-ray showed a dilated descending colon with large amounts of stool and the presence of intraperitoneal free air.

A massive disimpaction was undertaken with enemas and digital removal. This resulted in a total of 25 pounds weight loss from disimpaction alone in the first day. Evaluation of the patient's acute renal failure included a renal ultrasound which revealed bilateral dilatation of renal calyces, ureters, and an enlarged bladder. Within 24 hours after disimpaction, the patient had a post obstructive diuresis of over 15 liters and with intravenous volume replacement, a dramatic normalization of serum creatinine and serum

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urea nitrogen (0.9 mg/dl and 13 mg/dl) occurred. The patient underwent a laporotomy because of the possibility of sigmoid colon perforation. At time of surgery, a thinned and dilated sigmoid region was found without perforation. A left colectomy and diverting colostomy was then performed. Gross pathology examination of the intestinal section revealed no perforations and on microscopic examination ganglion cells were seen.

DISCUSSION

Chronic constipation frequently occurs in certain patient populations. Included are the elderly, those in long-term care facilities, psychiatric patients or any one confined to long term bed rest. Our patient was in a high risk group and indeed had suffered from many years of constipation. The level of this patient's urinary outlet obstruction, at the bladder neck, accounts for the findings of bladder, ureter and renal calyceal dilatation. Obstruction at this level is the anatomic location previously reported in adults to precipitate acute obstructive renal failure.[5] Once disimpacted, our patient, like those previously reported in the literature, had a rapid reversal of acute renal failure.

Acute treatment of fecal impactions with digital removal, enemas, and stool softeners are usually effective for the short term;[6] however, those patients with a secondary dilated colon remain at high risk for recurrent impaction and for this reason our patient had a surgical resection of the sigmoid and diverting colostomy performed.

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Using a Systems Approach to Medical Office Management

*Fonde Taylor**

More well established medical practices are losing money from a lack of efficient office systems than a lack of patients in the waiting room. After several years of working closely with medical offices all over the state of Alabama as office manager, computer installation representative or systems consultant, my colleague and I have seen more than enough cases to support this observation.

Consider the following:

CASE #1: A single doctor practice was putting approximately $150,000 on the books each month. The doctor wasn't interested in the business and billing aspects of his practice. He just wanted to practice medicine. He thought the rest would take care of itself until he looked at his bank statement one month and discovered a seriously depleted account.

We were called in to check on the situation. We found bundles of charge tickets two and three months old stuffed in drawers and cabinets. After further review, we found the charges had never been billed to accounts or insurance. We found unopened mail stuffed in drawers. We opened it to find several checks from insurance companies. We found bundles of Medicaid remittances that had never been posted. Upon further investigation we could not find the Medicaid checks associated with the remittances nor could we find any record of the checks having been deposited. We called a Medicaid representative who found records of the checks having been cut but no record of any of the checks clearing the bank. The Medicaid representative followed up by reissuing the checks and cancelling the originals.

The doctor wasn't interested in the business and billing aspects of his practice. He just wanted to practice medicine. We found bundles of charge tickets two and three months old stuffed in drawers and cabinets. After further review, we found the charges had never been billed to accounts or insurance. We found unopened mail stuffed in drawers. We opened it to find several checks from insurance companies. We found bundles of Medicaid remittances that had never been posted.

There were other equally disturbing discoveries, but after five or six months of working with the staff to set up and implement systems to insure timely entry of charges and payments to accounts, regular filing and follow-up of insurance claims, and establishing job descriptions with clearly defined responsibilities, the doctor's collections went from $30,000 to $100,000 per month.

CASE #2: An established, well-respected group was experiencing extremely poor collections and had very little money in the bank. We reviewed their billing office situation. They had competent employees who knew what they were doing but there were no systems in the office and their workspace was not much bigger than a broom closet. They had no filing systems, no clearly defined jobs or responsibilities, and there was no system for collecting on delinquent accounts or following up on unpaid claims.

Our first objective was to find another office and set up a filing system. We spent a week moving the

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billing staff into adequate space in which each employee had a separate office. At the same time we sorted through numerous piles and boxes of charge tickets, payment records and insurance claims and set up one room with filing cabinets, where we filed the records in an organized manner.

Our next task was to assign specific jobs. One employee was established as the data entry clerk. Her responsibilities primarily included entering charges and face sheet information in the computer system. A second employee was established as the payments clerk. Her responsibilities included posting of all insurance and patient payments to the computer, reconciling the bank statement to the computer records, and opening and distributing the mail. A third employee was assigned the role of insurance clerk. Her responsibilities included weekly review and filing of all insurance claims that were not transmitted electronically, attaching any necessary referral documents to HMO claims, attaching a copy of the Explanation of Medicare Benefits to any secondary insurance claims requiring this, and working problem accounts such as credit balances.

They had no filing systems, no clearly defined jobs or responsibilities, and there was no system for collecting on delinquent accounts or following up on unpaid claims.

One task that was divided among the employees was telephone inquiries. We set up a phone schedule for three months in advance alternating phone duty days so that each employee had an equal amount of days that they were responsible for answering inquiries.

After the employees were assigned specific jobs and had been working under the new system for a few weeks we noticed a dramatic improvement in their morale. We also noted that the work was being posted in a timely fashion and the insurance claims were going out on a weekly basis.

Another project we worked on involved collections. The computer billing system this office was using allowed dunning messages and collection letters to be set up. We put together a series of messages and two collection letters and worked them in over a period of four months. After the fifth month and no response, the delinquent accounts were turned over to a collection agency. After the collection system was put in, the payment clerk indicated that she was indeed receiving payments on accounts that were severely delinquent, some as many as 16 months. Prior to this, there had been no serious attempts to collect on delinquent accounts.

The end result of the many projects at this office was improved employee morale, more efficient procedures and work flow, and a dramatic increase in collections. The average in collections went from $160,000 to $240,000 per month.

CASE 3: Employee turnover and high overhead were a couple of the problems plaguing the billing office for a hospital-based group.

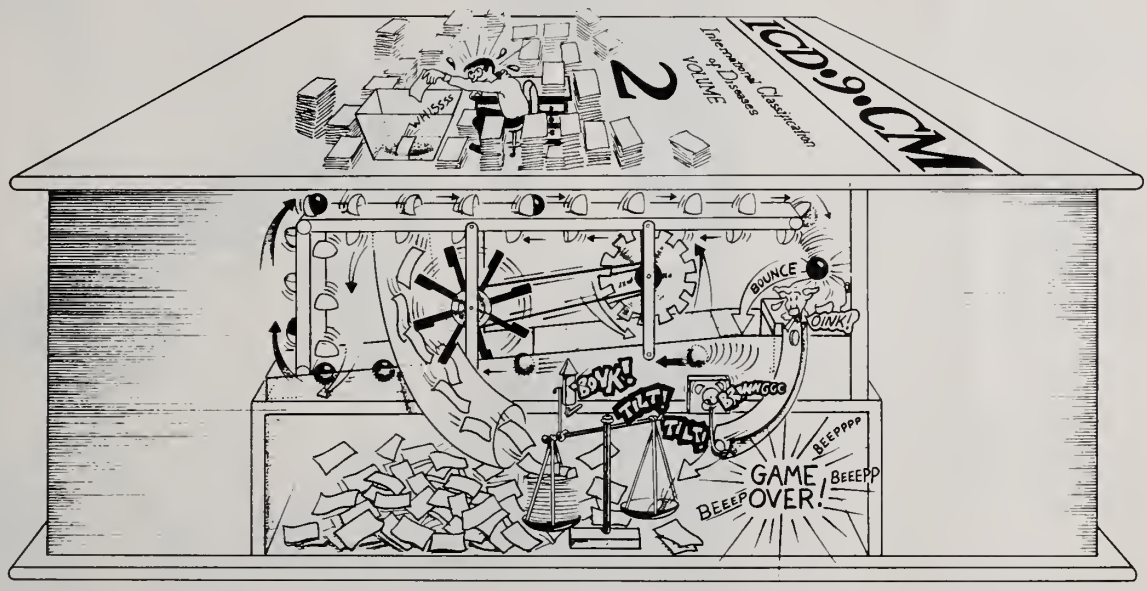
Our company assisted in recruiting and training new employees after the office manager and several members of the clerical staff resigned. We were able to reduce the overhead by combining positions and hiring fewer replacements.

After recruiting new personnel for this particular office, we reviewed their systems. They had some excellent systems in place; however their was no written manual to support them. We wrote an employee and policy manual which established written job descriptions, daily and end of month procedures, collection policies, and certain guidelines regarding time off for illness, vacation, holidays and maternity leave. The manual also established guidelines for employee evaluation and included a disciplinary policy.

One other major project we worked on at this office involved some outstanding Medicare claims. We discovered a problem with these claims when we were reviewing the A/R reports and noticed a downward trend in collections for the first quarter. A corresponding increase in money due by insurance, specifically Medicare, was occurring at the same time. After pulling Medicare remittances and audit trails for the first quarter and looking over the rejections, we discovered the problem involved diagnosis codes. Claims were being rejected because Medicare required a more specific diagnosis code for the procedures. One of the employees was a coding expert and she refiled approximately $50,000 worth of rejected claims with the more specific 4th or 5th digit diagnoses.

End results of the systems work at this particular office were the development of more efficient coding and insurance filing methods, clearly defined employee responsibilities and office policies, and reduction of overhead and office expenses.

ARE YOU LOSING MONEY IN THE CODING GAME?



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In each of these three cases, the major portion of the problem involved an absence of systems. A system may involve something as simple as setting up a filing system. More often though it will involve more difficult tasks such as establishing procedures for collections on delinquent accounts; establishing specific jobs and responsibilities for employees to insure an efficient flow of the work; establishing procedures for the timely and efficient filing of insurance claims; and establishing office policy and procedure manuals.

Office managers can significantly improve their efficiency, collections and employee morale by taking time out to study their office procedures and develop a systems approach to all aspects of the billing office.

In each of these three cases, the major portion of the problem involved an absence of systems. A system may involve something as simple as setting up a filing system.

We have found the following methods to be effective in developing office systems:

1. SURVEY: Take two or three days to complete a survey of your office. The survey should include in-depth interviews with each employee from the receptionist to the department supervisors. Take notes from your interviews to determine what the employee sees as his or her specific tasks and the time it takes to complete those tasks. Ask if they are able to complete their work in a timely manner and if they see any areas which could be improved upon. After completing the survey, draw a diagram showing the work flow and write up a preliminary job description for each employee.

2. PROBLEMS: From the survey notes, look for areas in the work flow where potential problems exist. These might include a duplication of efforts, an uneven distribution of work or a lack of clearly defined responsibilities and time limits. Write out an outline of these problems.

3. SOLUTIONS: Determine methods to streamline the work. If you have a computer billing system or service, are you fully utilizing its capabilities? In addition to better utilization of your computer system, you want to determine if your employees are being utilized to their fullest. Do they have specific responsibilities? Or do several employees take a "corporate" attitude towards accomplishing the work? It is generally better to have one individual responsible for completing a given task.

4. IMPLEMENTATION: From the solutions that have been outlined, a plan should be written up for reorganizing the office. This plan should set forth the systems that are needed, such as a system for the workflow, a collection system or a filing system. It might also include a final draft of the job descriptions and office policies. After completing this, implement the plan a step at a time, making whatever changes are necessary along the way.

After you have gone through this process, you should recognize a significant difference in your office. We have seen results as soon as one month after putting in new systems; however for implementation of the entire plan, it may take several months to see an overall difference.

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Manuscripts from member physicians should be typewritten, double spaced on white paper 81/2 x 11 inches with adequate margins. Two copies should be submitted. Authority for approval of all contributions rests with the Editor. *Alabama Medicine* reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

Style: The first page should list title (please be brief), the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain, in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

The Stylebook/Editorial Manual, published by the AMA, is the general reference for questions of style. It is particularly useful in the proper presentation of data. When conflicts occur between usage, etc., by an author and the stylebook, these will be resolved in favor of the author if his method is persuasive and logical.

Helpful to many writers is *The Elements of Style* by William Strunk, Jr., and E.B. White, which emphasizes brevity, vigor and clarity.

Final authority on grammar is Webster's *New International*, Unabridged, Second Edition.

Length of Articles: Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

Illustrations: Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink on white paper. For photographs, glossy prints are preferred.

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Mrs. Charles Patterson
A-MASA, President

Doctors' Day Goes National

[Adapted from Facets, January 1991]

When Eudora B. Almond suggested that her auxiliary set aside March 30, 1933, to recognize the hard work and dedication of the physicians in her community, little did she imagine that 57 years later, the President of the United States would follow her example and proclaim March 30 National Doctors' Day.

As the wife of a physician, Mrs. Almond believed medicine to be the greatest profession on earth, and doctors, the greatest heroes. Her respect and appreciation for physicians and their work prompted her to suggest that her auxiliary set aside a day to honor local doctors. The suggestion met with immediate approval and the auxiliary adopted the following resolution:

"Whereas, the Auxiliary to the Barrow County Medical Society wishes to pay lasting tribute to her doctors, therefore be it,

"Resolved by the Auxiliary to the Barrow County Medical Society, that March 30, the day that famous Georgian Dr. Crawford W. Long first used ether anesthesia in surgery, be adopted as 'Doctors' Day,' the object to be the well-being and honor of the profession, its observance demanding some act of kindness, gift or tribute in remembrance of the doctors."

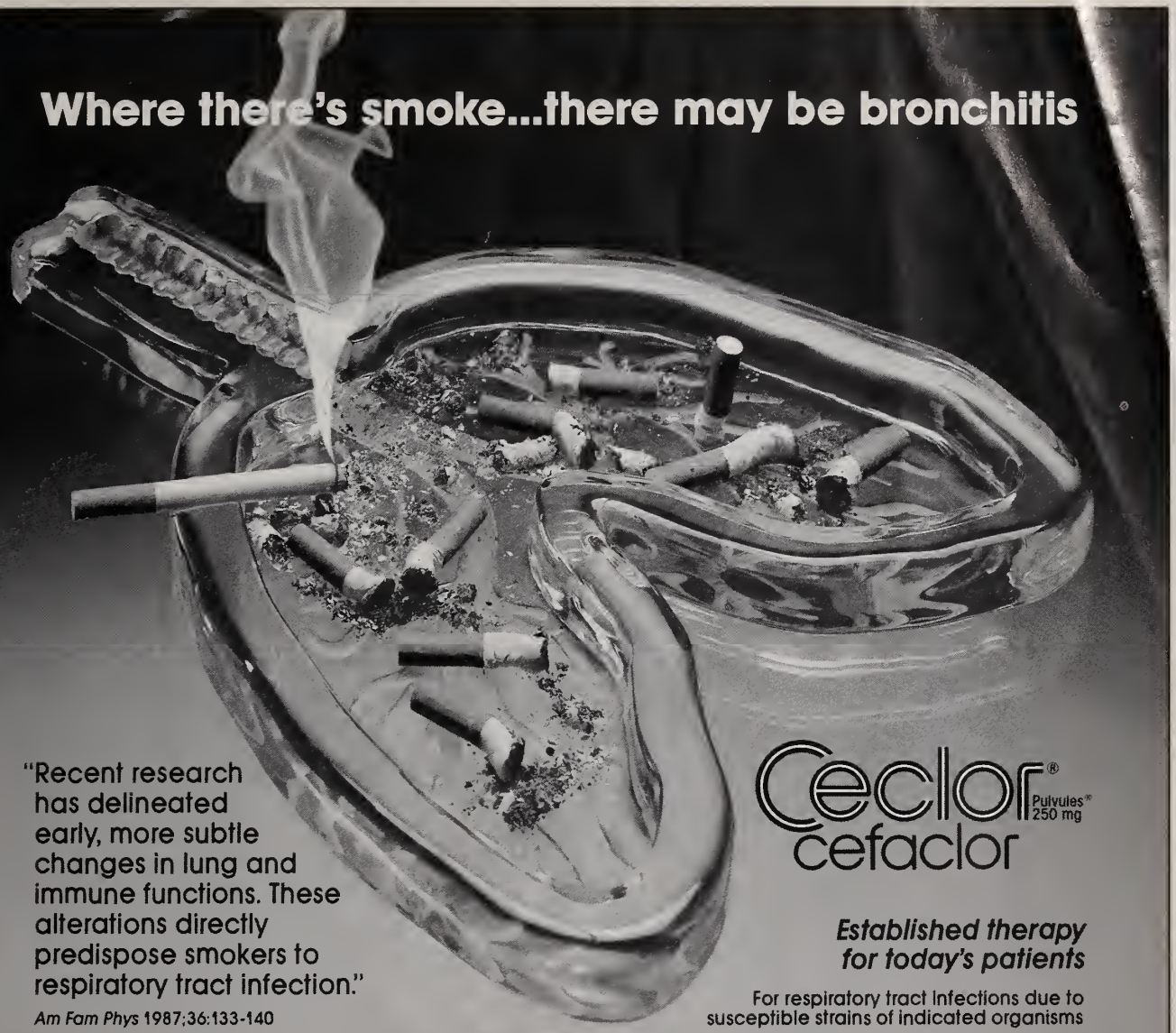
In observance of that first Doctors' Day, the members of the Barrow County auxiliary mailed cards to doctors and their wives in Winder, Ga., and placed flowers on the graves of deceased physicians, including that of Dr. Crawford W. Long, who became the first physician in history to use ether anesthesia in surgery on March 30, 1842.

Over the next two years, other auxiliaries began to follow the example of the Barrow County auxiliary, and in 1935 The Southern Medical Association Auxiliary passed a resolution recognizing March 30 as Doctors' Day.

Since that time, auxiliaries across the United States have set aside March 30 to show their appreciation for the role physicians play in caring for the sick, advancing medical knowledge, and promoting improved public health. Some auxiliaries have recognized the day by donating medical equipment, life line units, or furniture to hospitals or nursing homes; other groups sponsor blood drives or health fairs. "On Doctors' Day, it's important for auxiliary members to become involved in community service projects on a local basis," says Southern Medical Association Auxiliary President Roberta Barnett. "Our involvement shows the public that physicians are interested in and contribute to their local communities."

"When President Bush signed the proclamation declaring March 30 National Doctors' Day," says Roberta Barnett, "he acknowledged the efforts of auxilians throughout the country to establish a day recognizing the invaluable contributions that physicians have made to the nation and that they continue to make daily."

Where there's smoke...there may be bronchitis



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Am Fam Phys 1987;36:133-140

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• Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
• Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

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• Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
• Gastrointestinal (mostly diarrhea): 2.5%
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• As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
• Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
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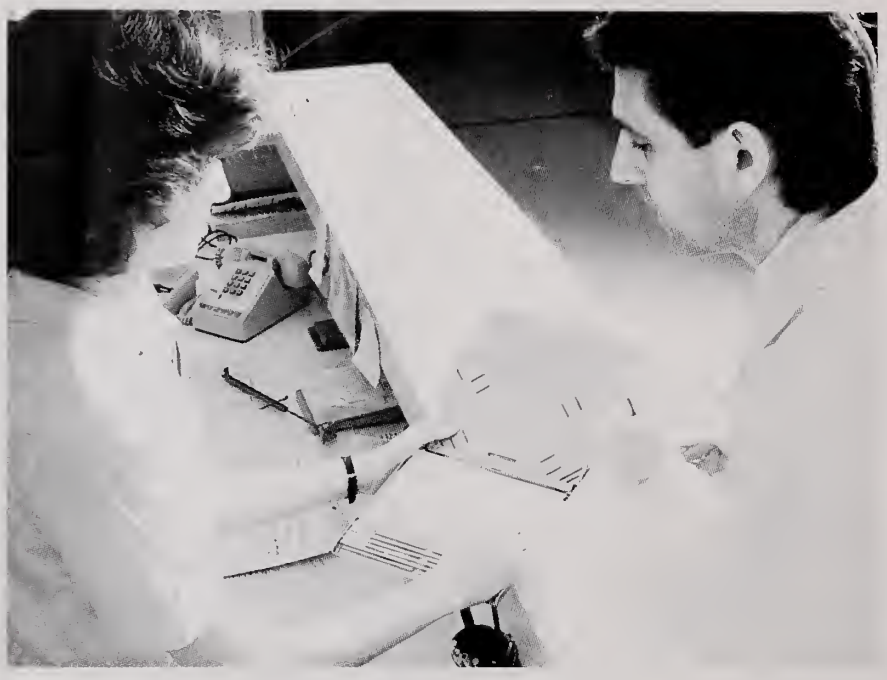

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HMSS Assembly Information Exchange
Thursday, June 20, 1991
7:00 p.m. - 8:30 p.m.

PRO and Managed Care Review: Combating the Hassle Factor

A distinguished panel to include Alice G. Gosfield, JD, Alice G Gosfield and Associates, Philadelphia; T. Reginald Harris, MD, AMA Council on Medical Service; and Bob Becker, MD, American Medical Care Review Association, Washington, DC., will be available to provide the most recent activities and advancements made in dealing with the hassle factor of interaction with regulatory systems and managed care companies.

Following the presentations, a 45-minute question-and-answer period will permit medical staff participants to offer questions regarding their day-to-day interactions with medical review organizations, and ideas for combating the hassle factor.

Assembly Education Program
Friday, June 21, 1991
2:30 p.m. - 5:30 p.m.

Part 1: Update on JCAHO: The AMA Perspective

AMA JCAHO Board of Commissioners will bring HMSS Representatives up to date on their interactions and initiatives with the JCAHO, undertaken in the interest of medical staffs.

Part 2: Practice Parameters: Policy, Applications and Issues

American Medical Association's extensive activities in the practice parameters arena will be addressed, as well as current applications and advancements in the development of practice parameters.

A question-and-answer session will be provided after each panel discussion.

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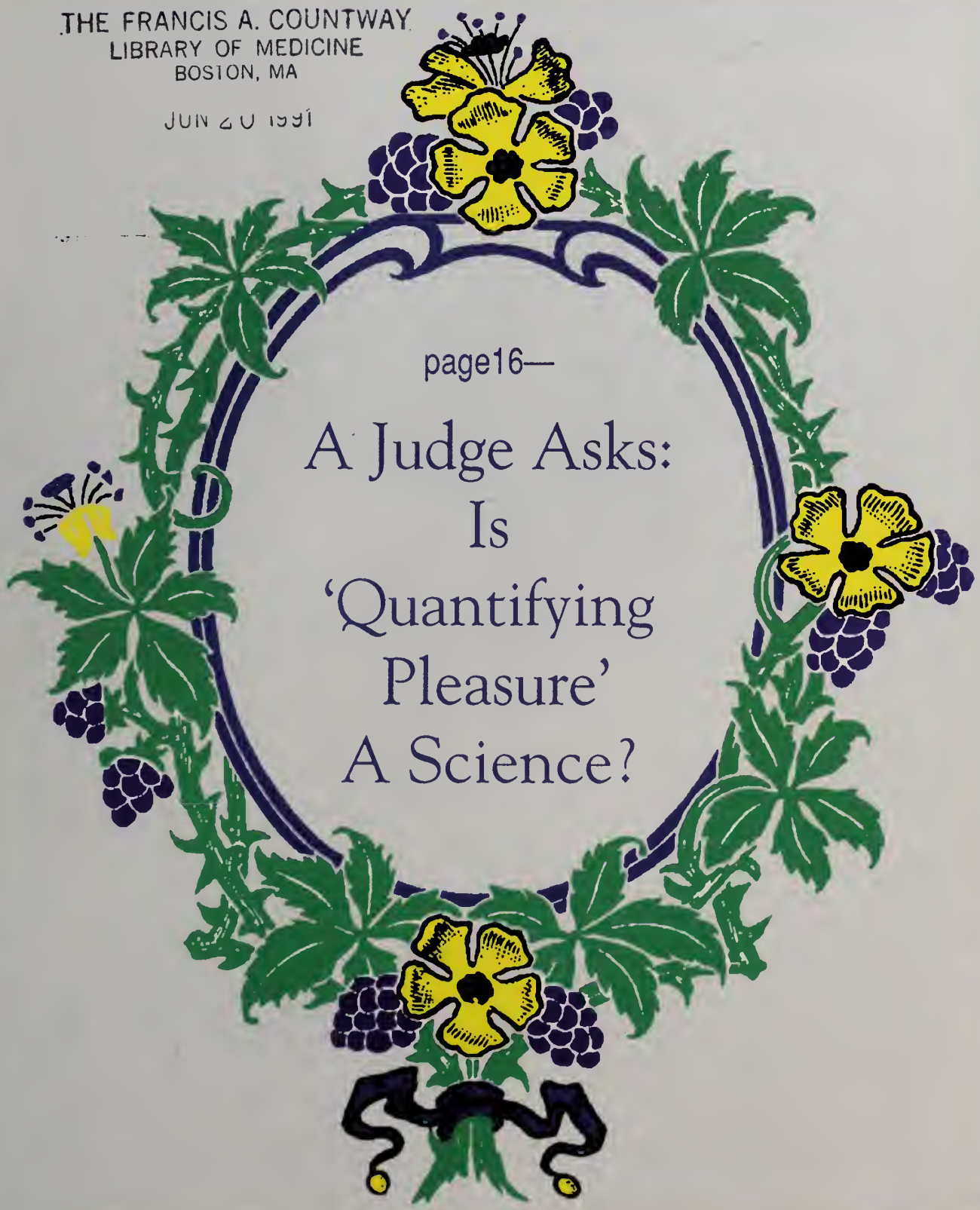

page16—

A Judge Asks: Is 'Quantifying Pleasure' A Science?

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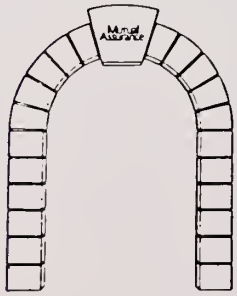

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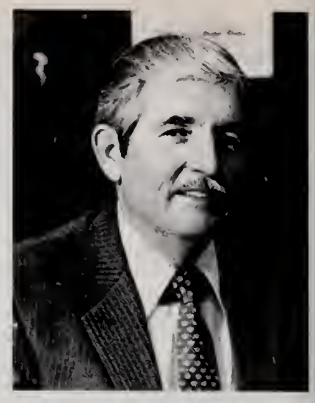
In This Issue

EXECUTIVE DIRECTOR



S. Lon Conner
Executive Director, MASA

The Rule of Rescue

The Oregon experiment, a long and agonizing attempt to come to grips with the necessity of defining the limits of state support for Medicaid and other medically indigent citizens, has captured the attention of virtually every state as well as the nation's capital.

The Oregon Health Services Commission recently completed work on its principal function to date. It created a prioritized list of health care services ranging from what was deemed to be the most important to the least important. The road ahead is still rocky. But the road behind proved impassable.

In May of last year, Oregon attempted a different approach, one based entirely on cost analysis as defined by the most bang for the buck. That is to say, Oregon's original shot at rationing of health resources—and that's what it is, rationing—was a stern "utilitarian" formula—one that attempted to provide some minimum level of care to all indigents to the prejudice of far more expensive care for a few. Three years before the priority list, the Oregon Legislature had decided to stop funding pancreas, liver, heart and bone marrow transplants.

The whole country knows what happened six months later: 7-year-old Coby Howard, whose parents had tried and failed to get a bone marrow transplant as possible help for him with his lymphocytic leukemia, died. His mother had raised $80,000 of the $100,000 deposit required by a hospital but the campaign stalled and the boy died.

The nation was horrified. Even though many Americans might have agreed in principle to the allocation of scarce resources, this was horrifying to Oregon and the rest of the nation alike. Quite apart from the tragedy of any child's death, the reason the case stunned the nation was that here was a flesh and blood victim of economic choices by a state. Oregon, it appeared, had refused to fund the transplant because it was not considered cost effective, in an agency with finite resources, to spend the money on Coby when that money diverted to less serious illnesses would have helped hundreds and perhaps thousands.

The nation was thrown face to face with the harsh reality of trading money for a life. Underlying the shock, according to David C. Hadorn, M.D., of RAND Corporation's Department of Social Policy, was that "The Rule of Rescue" had been broken.

That rule, Dr. Hadorn wrote in *JAMA* (May1, 1991, pg. 2218) defines a society's expectation that it has a perceived duty to save endangered life whenever possible, hang the cost. Remember the thousands and thousands of dollars in labor and equipment arrayed to save the child in the well several years ago. The public would have demanded the total resources of the entire Defense Department had this been indicated.

Rescue is a deeply engrained instinct. When rescue was denied to Coby Howard, because of cost, the nation was aghast. And it will be aghast often in the future as rationing gains momentum and harder and harder choices must be faced.

It was against this background that the Oregon' Health Services Commission (OHSC) released a draft

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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor

Warnings: ***Angioedema:*** Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC In such cases, VASOTEC should be promptly discontinued and appropriate therapy and monitoring should be provided until complete and sustained resolution of signs and symptoms has occurred. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms Angioedema associated with laryngeal edema may be fatal **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL) and/or measures necessary to ensure a patent airway, should be promptly provided.** (See AOVERSE REACTIONS)

Hypotension Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy (See OOSAGE ANO AOMINISTRATION) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments (See PRECAUTIONS, *Drug Interactions* and AOVERSE REACTIONS) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident

If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary

Neutropenia/Agranulocytosis. Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered

Fetal/Neonatal Morbidity and Mortality ACE inhibitors, including VASOTEC, can cause fetal and neonatal morbidity and mortality when administered to pregnant women

Enalapril crosses the human placenta When ACE inhibitors have been used during the second and third trimesters of pregnancy, there have been reports of hypotension, renal failure, skull hypoplasia, and/or death in the newborn. Oligohydramnios has also been reported, presumably representing decreased renal function in the fetus, limb contractures, craniofacial deformities, hypoplastic lung development and intrauterine growth retardation have been reported in association with oligohydramnios Patients who do require ACE inhibitors during the second and third trimesters of pregnancy should be apprised of the potential hazards to the fetus, and frequent ultrasound examinations should be performed to look for oligohydramnios If oligohydramnios is observed, VASOTEC should be discontinued unless it is considered life-saving for the mother

Other potential risks to the fetus/neonate exposed to ACE inhibitors include intrauterine growth retardation, prematurity, patent ductus arteriosus, fetal death has also been reported It is not clear, however, whether these reported events are related to ACE inhibition or the underlying maternal disease It is not known whether exposure limited to the first trimester can adversely affect fetal outcome

Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion

Enalapril has been removed from the neonatal circulation by peritoneal dialysis and theoretically may be removed by exchange transfusion, although there is no experience with the latter procedure

There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose) Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril, but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day but not at 30 mg/kg/day (50 times the maximum human dose)

If VASOTEC is used during pregnancy or if the patient becomes pregnant while taking VASOTEC, the patient should be apprised of the potential hazards to the fetus

Precautions: *General Impaired Renal Function* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy In such patients, renal function should be monitored during the first few weeks of therapy

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic This is more likely to occur in patients with preexisting renal impairment Oosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See OOSAGE ANO AOMINISTRATION)

Hyperkalemia Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC (See *Drug Interactions*)

Cough Cough has been reported with the use of ACE inhibitors Characteristically, the cough is nonproductive, persistent and resolves after discontinuation of therapy ACE inhibitor-induced cough should be considered as part of the differential diagnosis of cough

Surgery/Anesthesia In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion

Information for Patients Angioedema Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician

Hypotension Patients should be cautioned to report lightheadedness, especially during the first few days of therapy If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician

Hyperkalemia Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia

NOTE As with many other drugs, certain advice to patients being treated with enalapril is warranted This information is intended to aid in the safe and effective use of this medication It is not a disclosure of all possible adverse or intended effects

Drug Interactions Hypotension Patients on Diuretic Therapy Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour (See WARNINGS and OOSAGE ANO AOMINISTRATION)

Agents Causing Renin Release The antihypertensive effect of VASOTEC® (Enalapril Maleate, MSO) is augmented by antihypertensive agents that cause renin release (e.g., diuretics)

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium. Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium

Pregnancy Pregnancy Category D See WARNINGS, *Fetal/Neonatal Morbidity and Mortality*

Nursing Mothers Enalapril and enalaprilat are detected in human milk in trace amounts Caution should be exercised when VASOTEC is given to a nursing mother

Pediatric Use. Safety and effectiveness in children have not been established

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients

HYPERTENSIDN The most frequent clinical adverse experiences in controlled trials were headache (5.2%), dizziness (4.3%), and fatigue (3%)

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE The most frequent clinical adverse experiences in both controlled and uncontrolled trials were dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category

Cardiovascular Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*), pulmonary embolism and infarction; pulmonary edema, rhythm disturbances including atrial tachycardia and bradycardia, atrial fibrillation, palpitation

Digestive Ileus, pancreatitis, hepatitis (hepatocellular [proven on rechallenge] or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal Muscle cramps

Nervous/Psychiatric Oepression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Respiratory Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection

Skin Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, diaphoresis.

Special Senses Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing

Urogenital Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and OOSAGE ANO AOMINISTRATION), impotence

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgia, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations

Angioedema Angioedema has been reported in patients receiving VASOTEC (0.2%) Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately (See WARNINGS)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure (See WARNINGS)

Fetal/Neonatal Morbidity and Mortality In infants exposed *in utero* to ACE inhibitors the following adverse experiences have been reported. Fetal and neonatal death, renal failure, hypoplastic lung development, hypotension, hyperkalemia, skull hypoplasia, limb contractures, craniofacial deformities, intrauterine growth retardation, prematurity and patent ductus arteriosus (See WARNINGS, *Fetal/Neonatal Morbidity and Mortality*)

Clinical Laboratory Test Findings Serum Electrolytes Hyperkalemia (see PRECAUTIONS), hyponatremia

Creatinine, Blood Urea Nitrogen In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis (See PRECAUTIONS) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients

Hemoglobin and Hematocrit Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists In clinical trials, less than 0.1% of patients discontinued therapy due to anemia

Other (Causal Relationship Unknown) In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported A few cases of hemolysis have been reported in patients with G6PO deficiency

Liver Function Tests Elevations of liver enzymes and/or serum bilirubin have occurred

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list of services that would be provided (and, by extension, not provided) by way of expanding Medicaid coverage to 100% of poor Oregonians.

This plan had been building for some time, of course. Everyone knew it was coming. But the list and its priority rankings provoked immediate outrage from some doctors and several consumer groups.

Some procedures deemed highly beneficial or life-saving were placed below routine procedures like headache treatment, deemed relatively trivial by the public.

Stung by the public outcry, the Commission blamed "incomplete or inaccurate information" and again postponed (the list had originally been due in March 1990) the completion of its priority rankings.

As in the case of Coby Howard three years earlier, the Rule of Rescue had been trampled, Dr. Hadorn said. Here was a list of priority rankings that may have been affected somewhat by faulty data, Dr. Hadorn writes, but was essentially an accurate result of the utilitarian, cost-effective analysis approach, which ruthlessly spreads available resources to maximize numbers of recipients. Obviously, high cost procedures were downgraded in such an equation.

OHSC had followed traditional cost-effectiveness theory exactly, Dr. Hadorn wrote. That theory dictates that in developing a priority list of services, the cost of each should be divided by some measure of the health benefit that is expected from treatment.

Such benefits are usually defined, Dr. Hadorn says, in order to factor in the expected longevity benefit or harm of a treatment with its overall impact on quality of life.

This is the bloodless cost accounting that plays God with the numbers and coldly analyzes cost per year of life saved or cost per "quality-adjusted" life saved. This ratio becomes the cost effectiveness measure.

Notice that even though this claims to integrate humanitarian factors, it does so in strictly utilitarian terms, almost as if people are pieces of machinery. Medicine has always occupied a central position in all humanistic thought. This computerized, mechanized approached to the allocation of care would seem to be totally foreign to this heritage. Bookkeeping and healing mix very poorly, if at all.

But if we look at the objective of such methodology, it can't really be faulted from the standpoint of legislative intent, which is, as Dr. Hadorn continues, to ensure that "the maximum possible health benefit is realized, subject to whatever resource is in effect."

From a legislator's standpoint, that approach is morally defensible. From the doctor's standpoint, it may become morally unthinkable. So we have a dichotomy—a measure that may seem faultless from the standpoint of public policy can become ethically unacceptable to the physician in a specific case. Here is where the rubber meets the road, as the Madison Avenue types say, in the legislation of standards of care allocation.

For example, the 161-page draft priority list placed surgical treatment of ectopic pregnancy and appendecitis just below, and thus less important than, dental caps for "pulp or near pulp exposure" and splints for temporomandibular joint disorder respectively. Dr. Hadorn:

"This priority order occurred despite the fact that the former surgical procedures are virtually 100% effective in treating otherwise fatal conditions. This counterintuitive preference order did not occur as a result of faulty data, as was suggested by OHSC, or by chance, but was an inevitable consequence of the application of cost-effectiveness analysis...

"Although both surgical procedures for appendectomy and ectopic pregnancy were correctly estimated to entail a far higher level and duration of benefit than either of the two minor treatments, the relatively high costs of surgery effectively neutralized these outcome considerations, producing nearly identical priority ratings for all four treatments."

In other words, a service that provided unquestionable relief to quite a few people at relatively low unit costs was deemed of roughly the same importance as a fewer number of lives at higher unit costs. Treating many patients for a painful condition could, in theory, be considered equivalent to saving one life.

Considered by whom? Governments, perhaps, but not by people because, once again, the Rule of Rescue was defied. In effect, the government would have told the patient to whom treatment was denied: "Sorry, but we know you will understand that it was not cost-effective to save your life. You wouldn't want to be greedy, would you?"

After the shock of this list had died, Oregon went back to the drawing board, this time to work on an alternative methodology that was claimed to be cost-free, an arguable premise.

Under this plan, originally fostered by Dr. Hadorn himself in 1988, categories would be developed depicting varying types or degrees of expected health benefit from treatments, assigning each such condition and a "treatment pair" to a single category.

continued on page 10

Categories were then stacked on top of each other and ranked by importance.

The contention was that cost had been eliminated. Surgery for appendecitis and ectopic pregnancy emerged in the top line. Splints for a temporo-randibular joints dropped near the bottom of the list and dental caps were eliminated entirely as a line item.

Services were to be ordered within each category according to the net benefit component of the cost-effectiveness ratio. While cost was eliminated as the direct determinant of service distribution, it remained hunkered down in the formula.

Up to one-half of the line items contained in the final list of the alternative method were rearranged; from 5 to 10% were moved 50 places or more. If the effect of the "net benefit" approach results in more expensive procedures being moved to the top in priority ranking, it seems obvious that a new outcry might be heard: that of discrimination against poor people with less exotic problems. In practice, the new system is extremely complicated and subject to a lot of "list jockeying adjustment."

The legislature must decide, in this approach, as in the cost accounting system, where the cut must be made. The services above the cut would be allowed; those below denied. Obviously, if the rejected utilitarian approach produced inequity by downgrading treatment for expensive services, the new approach may fall into the opposite peril. Since weighting would now favor some of the expensive services, the volume and spread of lesser services would be diminished.

Whereas the earlier system would have at least favored a broad segment of the poor population, the second approach had the potential for reducing the number of beneficiaries while increasing the number of costlier but effective services.

There are many possible nuances and permutations to the new approach, much too complicated for even a summary here, but it does not appear that Oregon, despite its heroic efforts, has yet achieved Solomonic division of resources.

It could be argued, in fact, that the first approach, from the standpoint of governmental policy, was the fairer although cruelly insensitive to the needs of people needing capital-intensive care. It was fairer, you might argue, because it was wider.

It all really depends on your point of view and what is intended by the program designed to provide basic medical care to the masses of the medically indigent. For one thing, what is "basic" or "essential"?

All of which is a fair preview of what is to come, at state and national levels, in an ongoing debate that, to my way of thinking, can never end or produce equity that will satisfy even a large majority.

I applaud the effort, of course, and I know this is coming down the pike at great speed. Some years ago, the late Norman Cousins, then Editor of the *Saturday Review* and subsequently adjunct Professor of Medicine at, I believe, Stanford, said the fundamental question in matters of this kind (this was long before health care rationing was on the horizon) went beyond who decides to: "who decides who decides."

In short, we are all fallible and mortal, and even the finest supercomputers are no more wise or human than their human inputers. What was evident in the first Oregon list, and to some extent in the second, was the necessity of the deciders to distance themselves from the object of their formulations by leaving it all to the computer, as if this binary code separation permitted them to be totally dispassionate.

We can run from the awesome decisions but we can't hide. Ultimately, I am beginning to think, the jurisprudence of allocating scarce resources is impossible. The best that can be achieved is simply muddling through, much as the British have done in their national health plan—muddle through and let the inequities and inhumanities fall where they may.

It is not a happy time we are facing, however necessary it may be to face it.

Vincent Liberto attended St. Stanislaus from fourth grade through high school, graduating in 1951. Now practicing Pediatric Dentistry in New Orleans, Dr. Liberto was President of the St. Stanislaus Alumni Association from 1971-1973, and he is currently President of the Louisiana Dental Association.

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PRESIDENT'S PAGE

T. Riley Lumpkin, M.D.
President, MASA

So Long, Goodbye, Thanks a Million*

It seems like 10 years ago when the call came to make a run for the position of President of the Medical Association of the State of Alabama. And yet, from another perspective, it seems like a minisecond filled with an incredible diversity of experiences. It has been a time of action and anxiety, of frustration and fulfillment, of challenge and concern. In other words, it has been a wonderful opportunity for me to gain wisdom, make new friends, cherish old ones, and attend countless meetings!

When I accepted this position, I had a dream. Actually, I had a number of dreams, none of them modest. I hoped to mold health care decision-making for years to come and initiate programs that would benefit every person in the State of Alabama. The Association would provide the platform that would support all my bright and innovative plans. My fellow physicians would hail me as a great leader and give me accolades for my forethought, understanding, and compassion. Best of all, I would bring health and well-being to *all* our patients—the people of Alabama.

Well, as we all know, some dreamers fare better than others when it comes to converting visions into reality. When people ask how this year has gone, I often say that I was unable to meet my lofty goals because the mundane took all my time. But the truth is that I don't know if I or anyone else can tackle the problems that face us on the large scale, even with all the time in the world. I find myself remembering that Thomas Edison said that it takes 2% inspiration and 98% perspiration to bring an idea to reality. Similarly, George Bernard Shaw figured that 10 minutes a day spent thinking was about enough to change the world. I'm not sure what world he was wanting to change, but I'm coming to understand that if we want to change *our* world, maybe we need to give more attention to those very mundane activities that I saw as an interference with the mission I had set for myself.

So what is mundane enough to be worth our trouble? I believe that the first, last, and most important step is to build our connections with those around us. The local county medical societies must be the root of the state organization. Let us support innovation on the county level instead of looking to state leaders to set the agenda. I can tell you from my own experience this year that your state leaders are looking to *you* for fresh new thinking and imaginative programs. No one understands local conditions better than you or is more closely in touch with local needs than you are. Come up with a few good ideas and get behind them. Try to leave competition aside when it comes to planning for the good of your profession, the health of your community, and the well-being of your patients. Many of today's most difficult health chal-

*This column by Dr. Lumpkin, his last as 1990-91 President of MASA, also served as the report of his year to the College of Counsellors and House of Delegates at annual session in Birmingham, April 1991. — Ed.

lenges can only be addressed by cooperation among physicians, allied health personnel, educators, and community leaders, to name only a few of those who must be involved in the solutions.

If we don't want to be regulated more than we already are, we must find ways to recognize and help our colleagues who do not or cannot practice medicine in a way that meets current standards of care. Again, this is a problem best dealt with on the local level. Each county society must develop procedures to handle these cases with compassion for both impaired physicians and the patients whose health may be endangered by inadequate care. The price for ignoring our obligations in this regard will be continued loss of professional autonomy to distant regulating bodies.

For much the same reason, it is essential that each community find a way to provide health care for all those in need. It is becoming more and more clear that if community coalitions are unable to develop local solutions to this need, then outside forces will impose unworkable, unpleasant, and/or destructive solutions that may create more problems than are solved. This, too, is a problem that must be addressed by a broad-based, but local community effort. The county medical societies are the ideal groups to lead the way in this effort.

So these are some of the mundane activities that I can recommend to you. I'm sure that if each of you spends your allotted 10 minutes a day thinking about the health problems you see around you, you will come to understand your community's needs. If you add your sweat to your thinking, I am confident that you will show up my meager efforts to tackle the mundane. I pass on, not a single torch to my successor, but many torches to each one of you. I have been able to keep a small fire kindled this year. In years to come I hope to see a mighty blaze come into being, the one I imagined I could light when I accepted this job. But now I know that a good fire is composed of many flames coming together. It has been my privilege and honor to serve the Association this year. I will regard it as a fine compliment if you take my grandiose dreams and turn them into reality.

So long, good-bye, and thanks a million.

Treatment of Early-Stage Breast Cancer

Many Questions, A Few Answers

*Edward H. Laughlin, M.D.**

Today most American women with breast cancer present with stage I or II disease. Often called "early stage" or "limited" breast cancer, stage I and II adenocarcinoma of the breast as defined by the American Joint Committee on Cancer[1] includes invasive tumors with no direct extension to chest wall or skin, and metastasis (if present) limited to moveable axillary nodes. Because 50% of all newly diagnosed breast cancer patients will die of their disease[2] malignant breast disease remains a serious public health problem in the U.S.

Curable breast cancer is no longer treated by a single operation but today is controlled by means of surgery, chemotherapy (CT), hormone therapy (HT) and radiotherapy (RT). Increasingly, as knowledge of breast cancer is disseminated, women with this disease are more aware of their treatment options and pose many questions about their therapy and prognosis. It behooves those of us who see breast cancer patients to be aware of the various treatment options, their indications and their results, to answer our own questions and those of women with this all-too-common malignant disease.

SURGICAL THERAPY

Treatment of Primary Lesion

Surgical excision of the primary tumor remains the cornerstone of therapy for curable breast cancer. The two therapeutic options for treating limited breast cancer are modified radical mastectomy, and limited resection with axillary node dissection and breast irradiation. Mastectomy and breast preserving procedures result in similar survival rates, therefore the decision to preserve the breast is made only for cosmetic reasons.[2]

Wide local excision of the primary with a margin of surrounding normal breast is preferred to a less extensive excision with no attention paid to tumor margins, or to a more extensive excision such a quadrentectomy.[2]

Relative contraindications to a breast sparing procedure include: large tumor size or central location; small, atrophic or pendulous breast; diffuse suspicious microcalcifications on mammography; two or more cancers in the same breast separated by more than several centimeters; concern about use or inconvenience of radiation.[3] Extensive intraductal carcinoma within the primary or extending into grossly normal adjacent breast following biopsy and re-excision probably should necessitate removal of the entire breast.[3]

Axillary Node Dissection

The presence or absence of metastatic tumor in axillary lymph nodes is the most significant single variable in determining whether breast cancer will recur.[4] In the past it was believed that removal of all axillary lymph nodes was necessary to cure breast cancer, but in this day of increasingly conservative breast surgery many oncologists question the need for complete axillary dissection to effect a cure.

The advantage of complete axillary dissection in early-stage breast cancer in providing prognostic information, possibly improving overall survival, and significantly reducing axillary recurrence point to its continued use in all cases.[2] However, the increased risk of significant edema of the hand and arm following full axillary dissection[5] may not make it worthwhile to remove seemingly uninvolved upper level nodes that can be treated by adjuvant therapy.[6] At this time it is not certain whether removal of lower and all clinically positive nodes is adequate or if complete axillary dissection is necessary in limited breast cancer patients to control their disease.

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Adjuvant Radiotherapy

Adjuvant RT is necessary following breast conserving surgery to achieve maximal local-regional tumor control. Radiation to the breast after excision of the primary and axillary dissection markedly reduces the risk of local recurrence in patients with and without positive axillary nodes.[7] RT to the breast is usually administered by means of super-voltage equipment and is directed via tangential fields to minimize radiation exposure to lung and heart. The entire breast is treated with 180 to 200 cGy per day for a total dose of 4500 to 5000 cGy to prevent breast retraction and fibrosis.[8]

Additional radiation or boost from external beam or radioactive implants to the site of the primary tumor following excision is commonly done. Though not universally agreed upon, a boost with the aim of reducing the incidence of local recurrence appears to be more useful after routine excisional biopsy rather than wide excision of the primary.[4]

The need for RT to the axilla and internal mammary nodes following a breast sparing procedure for limited breast cancer is controversial. Patients with extensive axillary lymph node involvement or with tumor outside lymph node capsules may benefit from axillary and supraclavicular radiation.[9] RT to the internal mammary chain of nodes in patients with central or medial lesions, especially when there are positive axillary nodes, may improve survival.[9]

The optimal timing of radiation and chemotherapy in patients receiving adjuvant cytotoxic drugs is not known, and at present studies are underway to determine if adjuvant RT should be given before, during or after adjuvant CT.

Adjuvant Chemo/Hormone Therapy
Node Negative Disease

In 1988, the National Cancer Institute (NCI) issued a clinical alert recommending either adjuvant HT or cytotoxic CT for women with node-negative breast cancer.[10] It now seems prudent rather than to expose all breast cancer patients to potentially toxic adjuvant therapy to treat only those who are at increased risk for recurrent malignant disease.[11]

At this time it is not possible to identify the subset of approximately one in three node-negative patients

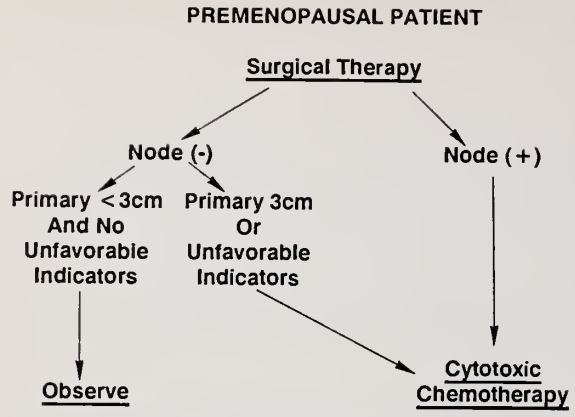

Fig. 1 Suggested flow sheet for adjuvant chemotherapy in premenopausal patient.

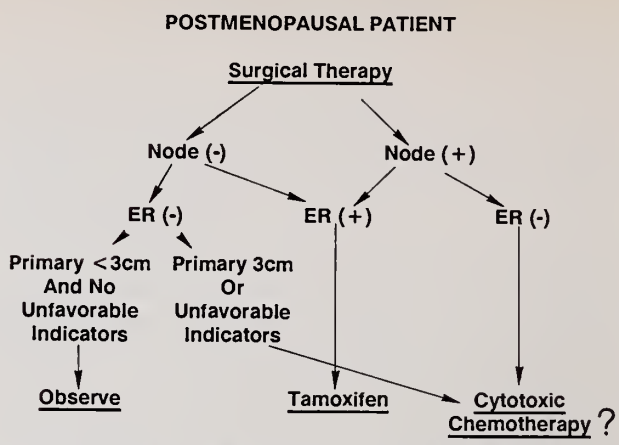

Fig. 2 Suggested flow sheet for adjuvant chemotherapy in postmenopausal patient. ER = estrogen receptor

who will relapse. There are multiple factors including histologic and other laboratory studies (see below) that may help identify those at risk for recurrence who may have improved disease free (and possible overall) survival following adjuvant drug therapy. Patients with breast cancer 1cm or less in size have an excellent prognosis and do not require adjuvant therapy.[12]

The choice of adjuvant HT or cytotoxic CT depends on the menopausal status of the patient. Women considered to be post menopausal are those 50 years of age and above, or who have not had a menstrual period in the past 12 months.

Premenopausal Patients Fig. 1

Tamoxifen (Nolvadex), acts as an antiestrogen upon breast tissue. It is of possible benefit to women of all ages with estrogen receptor (ER) positive tumors and axillary metastasis,[6] but the NCI does not recommend tamoxifen in node-negative premenopausal patients due to its unknown role as a cause of endocrine abnormalities, fetal maldevelopment and endometrial cancer.[12]

Node-negative premenopausal women with tumors larger than 3cm or having unfavorable prognostic indicators (see below) should be considered for adjuvant cytotoxic CT. Intravenous cyclophosphamide, methotrexate and 5-fluorouracil (CMF) given on days 1 and 8 every four weeks for six months is probably the preferred adjuvant regimen for node-negative breast cancer in younger women likely to relapse.[13]

Postmenopausal Patients Fig. 2

Older node-negative women with ER-positive tumors should be advised to take the antiestrogen tamoxifen, 10 mg twice a day, on a long-term basis for at least 2 (usually 5) years.[14]

Older women with node-negative ER-negative tumors 3cm or less and no unfavorable prognostic indicators (see below) should not be offered usual cytotoxic CT.[15] Postmenopausal node-negative ER-negative tumor patients with cancer larger than 3cm or unfavorable prognostic laboratory studies although at risk for recurrent disease are not known to benefit from cytotoxic CT. Therefore CT is probably not warranted in ER-negative older women as a whole, but may be indicated based upon a patient's equivocal age or wishes.[16]

Node Positive Disease

Premenopausal patients Fig. 1

All node-positive breast cancer patients under age 50, or above age 50 and not amenorrheac for at least 12 months should receive adjuvant cytotoxic CT since it has been shown to reduce both locoregional and distant metastasis in these women.[13] CMF given intravenously twice monthly for six months is probably the adjuvant therapy of choice,[13] but a subset of younger women with more than 3 positive nodes may benefit from doxorubicin (Adriamycin) preceding CMF.[13] In premenopausal node-positive women who have ER-positive tumors it is unlikely that tamoxifen adds anything to CT. [17]

Postmenopausal patients Fig. 2

Recent multi-institutional studies have confirmed that tamoxifen is the therapy of choice for treating all postmenopausal breast cancer patients with ER-positive tumors and axillary metastasis.[18]

Older patients with axillary-positive ER-negative tumors usually do not benefit from CMF adjuvant CT,[11] but a recent study suggests that these individuals may benefit from a short two month course of adjuvant CT with doxorubicin (Adriamycin) and cyclophosphamide.[19]

PREDICTING RECURRENCE

For women with invasive breast cancer and no distant disease axillary nodal metastasis is the most significant predictor of recurrence.[4] Axillary node disease implies distant spread, and the likelihood of cure decreases as the number of involved node increases.[20] Even node-negative patients are at significant risk for recurrence since one-third will have recurrent cancer at 10 years.[21]

Size of primary is strongly correlated with the risk of recurrence in all breast cancer cases, but the adverse effect of increasing size is more apparent in node-negative disease.[22]

Age and race effect prognosis in breast cancer.[23] Available evidence supports the view that although younger women have a better outlook than older women, a subset of those less than 30 years of age has the worst prognosis of all.[23] Black women with node-negative disease appear to fare worse than their white counterparts.[24]

Histopathologic findings are useful in predicting outcome. Compared to infiltrating ductal carcinoma, not otherwise specified (NOS), more favorable types include medullary with lymphocytic infiltrate, adenoid cystic, mucinous, papillary, and tubular carcinomas. The least favorable tumor type is inflammatory carcinoma.[20] Degree of differentiation based upon tubule formation, anaplasia, and mitotic rate is a proven method of estimating prognosis.[25] Other histolgic findings that foretell aggressive breast cancer and probable dissemination are lymphatic and blood vessel invasion.[26] Nuclear grading, not often described in pathology reports, is a good predictor of survival in node-negative breast cancer patients.[27]

ER analysis has been regarded as an important prognosticator in breast cancer. Although ER-positivity has been associated with improved survival in node-positive disease, ER status in node-negative disease appears to be an unreliable guide to prognosis.[28]

Flow cytometry to analyze tumor DNA content

(ploidy) or proliferation (S-phase fraction) is now widely used to predict the recurrence of breast cancer. Patients with node-negative disease having a high S-phase fraction are probably at increased risk for recurrence,[29] but ploidy status alone is not of definite prognostic value.[30]

Controversy persists concerning newer methods of tumor analysis to prognosticate breast cancer. Although increased levels of the lysosomal enzyme, cathepsin D, correlate with Laughlin[11] aggressive behavior in breast cancer, information as to the efficacy of the oncogene HER-2neu, epidermal growth factors, and stress-response (heat shock) proteins in predicting breast cancer recurrence is still lacking.[12]

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Can Pleasure Be Quantified In Dollars?

Claude L Brown, Jr., M.D.
Editor, Alabama Medicine

Faithful readers may recall that about two years ago, our far-seeing Executive Director, Lon Conner, commented in an editorial about an economist who had devised a method to calculate the amount of "hedonic damage" that a plaintiff has suffered. His data was the rising moon that would shed light upon what the real value of life is worth, and also would shower dollars upon the plaintiff's lawyers, and himself, who disseminated such welcome light. Several months later, I wrote a brief piece on this same subject, entitled "The Price of Pleasure."

Mr. Smith, the economist, was applauded at first by the Association of Trial Lawyers of America, and was told by one judge that he had brought precision to what had been previously but a guessing game. Several weeks ago, however, I read in the Wall Street Journal that a judge in Chicago had taken a different view of Smith's calculations and refused to admit them as evidence. The judge charitably termed Smith's pronouncements "pseudoscience."

So, heartened by this perceptive jurist's opinion, I wrote the judge a short complimentary note. He responded by sending the entire opinion that he had written about the case. His opinion I thought excellent and wrote to him: "Your opinion expresses searching views in cogent phraseology on such subjects as the limits of our knowing anything; on the nature of science; and on the ineradicable contingency of all experience. You quote Osler correctly in that he did state that the practice of medicine was an art based on a science; and - alas - the 'art' may, indeed, be diminishing. Readers of the Journal would profit from and much enjoy seeing your ideas." He graciously granted permission to publish this opinion. I know that you will enjoy and profit from reading such brilliant and clearly formulated ideas; I surely did. Herewith the judge writes:

In The United States District Court For The Northern District Of Illinois, Eastern Division

LUCY MERCADO, Individually and as Next Friend of BRIAN MERCADO, a Minor, Plaintiff,

v.

SALIM AHMED and CHECKER TAXI COMPANY, INC., Defendants.

N0. 86 C 6986

HONORABLE JAMES B. ZAGEL

Memorandum Opinion

ZAGEL, J.

Is the testimony of an economist on the cash value of the lost pleasure of life admissible?

We ought to begin inquiry into any proposed "scientific, technical, or other specialized knowledge," Fed. R. Evid. 702, by asking two questions. First, if the masters of the knowledge were to examine a set of facts, would all the masters come to the same conclusion? If they would their opinions are reliable. If the opinions can be verified or proven in some way the opinions are valid. If all structural engineers opine that the East Bridge will not stand against any hurricane, their opinions are reliable. If the bridge stands through the hurricane, their opinions are reliable but invalid. If the bridge falls with the first hurricane, their opinions are reliable and valid.

Were complete reliability and validity the only hallmark of science, there would be precious little sci-

ence. Not only is it difficult to achieve reliability and validity, it is often difficult to decide what shall constitute reliability and validity.

Reliability is the simpler concept: It requires only that all experts would say the same thing under the same circumstances. But who are the experts? Are all holders of Ph.D or M.A. degrees in a given field experts? Or are all with "X" years of experience in the field, or all who pass a certifying examination experts? Who decides who are the experts?

How do we test the proposition that all experts would hold the same opinion? These questions are answered by consensus.

Life in a courtroom teaches there is very little reliability; equally qualified experts testify to propositions in utter contradiction. This teaching is flawed. Much science is reliable. Where nearly all who master some special knowledge are in agreement, their opinions are rarely heard in court. Agreement ends conflict, and the courtroom is an arena of conflict. Reliable opinions quietly enter courtrooms in the form of stipulations of fact, the uncontradicted testimony of the fingerprint expert, or the questioned document examiner. Or, in some cases, courts may belittle themselves by excluding reliable expert evidence such as courts did for too many years in paternity cases.

Validity is a notion bristling with thorns and snares, among them the imponderable question of how we know anything with certainty.

The provisional solution has been an agreement (or agreements) that verification of science is to be found in the accuracy of its predictions. A scientific principle is valid if its use tells us that some defined thing will occur and we perceive that it does occur.[1] The bridge falls in the hurricane. Sometimes prediction is subtler: A theory explains a past occurrence and predicts that we will, if we look in a certain place, find proof of this. The scientist looks for and detects the background radiation that would have resulted if the universe began with a big bang, as one theory proposes. This reliance upon prediction as validation comes from the positivist tradition in philosophy. This is today the accepted method for deciding what is science, what is scientifically or technically known. But it may not be a comprehensive standard for all belief and knowledge.[2]

Prediction and its confirmation are often hard to find. Most scientific theories arise from the human thought in response to data perceived by imperfect human senses. Even data measured by machines is (and may always be) inexact. Validation becomes more difficult when science concerns itself more with things that we do not sense, things such as quarks, gravitors, and strange attractors, whose existence emerges at the end of a long chain of inference. A scientific theory is often proposed because it explains existing data. Explanation is not enough. Many discredited, even fanciful, theories explain what we have seen, heard, done, or felt. If explanatory power were enough to make science, then witchcraft, astrology, and paranoid delusions are science.[3] It is possible to provide many alternative explanations for a set of past events. One of the most profound challenges to the admission of psychiatric testimony is that psychiatric theory often has only the power to explain, and psychiatrists have expressed the view that they cannot and ought not to be predictors of human conduct.[4] Indeed, there are several explanatory psychiatric theories.

Predictions that a bridge on Florida's southeast coast will fall in a gale is likely to be quickly and easily tested. But many scientific theories (and usually the most important ones) predict a very large number of events. We cannot be really sure of theory validity until all the theory's predictions are tested. Classical physics explained the physical world and predicted innumerable events. Its predictions were consistently verified. At the turn of this century, classical physics explained and predicted everything except black body phenomena and the result of Michelson-Morley experiments about the speed of light. To explain and predict these two phenomena, classical physics was ultimately subordinated to quantum physics and the theories of relativity. The point is that validation never ceases. New data might always explode accepted theory. Indeed we have never decided what mini-

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[1]Quine wrote (in language used by many professional philosophers): "From impacts on our sensory surfaces, we in our collective and cumulative creativity down the generations have projected our systematic theory of the external world. Our system is proving successful in predicting subsequent sensory input. How have we done it?" W.V. Quine, The Pursuit of Truth, at 1 (Harvard 1990).

[2]Hans-Georg Gadamer, a philosopher in some vogue with legal academics, says, in essence, that the highest form of knowing in the human or social realm is not discovery or explanation of fact but understanding and understanding is not achieved by following a set method, but rather consists in moving to one's place in the continuing tradition. This understanding is like that of legal (or theological) interpretation—applying given rules and texts to new cases to create new texts and rules. Gadamer's high regard for legal interpretation may explain the high regard in which he is held by some legal interpreters. See H.-G. Gadamer, Truth and Method (J. Weinsheimer & D. Marshall trans. 2d rev. ed. 1989).

[3]c. Geertz, Local Knowledge, at 78-79 (Basic Books 1983).

[4] See brief of amicus curiae for the American Psychiatric Association in Estelle v. Smith, No. 79-1127, 447 U.S. 934 (filed June 6, 1980).

mum of validation is required for provisional acceptance. A single true prediction can destroy a competing scientific theory. A single true prediction will seldom validate a theory. Neither law nor science accepts the maxim *veritas in uno, veritas in omnibus.*

The tentative nature of all theory has never stopped us from relying on theory because it is pragmatic to do so. Some knowledge is better than none. Classical physics still works quite well for ordinary mechanics. Astronomy went from a theory of spheres (Eudoxus) to a theory of circles[5] around the earth (Ptolemy) to a theory of circles around the sun (Copernicus) to a theory of Qllipses around the sun (Kepler). Yet a sailor teaching a child the phases of the moon and navigation by the north star has had no need to alter his essential teaching for over three millennia.[6]

The court, like the sailor, is interested in what is reliable and valid for its need.

Over many years judges have paid too little attention to these twin requirements of reliability and validity. The reasons for this, I suggest, are several.

One is the Frye test which admits as science that which scientists agree is science. Frye v. United States, 293 F. 1013 (D.C. Cir. 1923). By adopting this rule, courts signaled their dependence on the "community" of experts to decide admissibility.

The Frye rule does not reject reliability and validity as standards for science. Indeed, in practice the scientific community presumably applied these tests and informed the court of its findings.

Two is the fact that some expert opinion evidence is admissible under longstanding custom. For example, psychiatric opinion of insanity is admissible because anyone's opinion of insanity is admissible given an adequate basis for the opinion. When the evidence was first admitted, it was not examined for reliability or validity.

Three, courts tend to devalue reliability as a guide to admissibility. Judges are accustomed to hearing diametrically opposed statements of purported truth. The absence of reliability in eyewitness accounts of facts, opinions about motives and so forth is part of the human condition—elimination of the unreliable is one goal of science. Where it can be eliminated, we can have science; where it cannot, we have no science.

Four, courts often ask juries and themselves to decide difficult questions of fact. Under the stress of this task, the trier of fact will sometimes entertain evidence in the hope it will ease the task. From a formal perspective there may be little harm in this practice. The law's formal solution to the undecidable fact question is found in burdens of persuasion. Where the fact question is too difficult to decide with any degree of confidence, the party with the burden of persuasion loses. This formal solution is unpopular in practice. It is a last resort in civil cases. Also, it is applied very rarely in cases of credibility conflict. In my experience jurors are far more likely to reach an impasse than to say that they cannot decide who is telling the truth and return a verdict for defendants in a civil case. Judges and juries use their common sense and experience to decide, in light of all the evidence, which scientist is correct. With scientists as well as lay witnesses, judges and juries feel obligated to come down on one side or another to reach a verdict by deciding whom to believe rather than reaching a verdict by believing no one.

Courts and scientists seek truth. This they have in common. Courts do more than seek truth: they resolve disputes in society. Indeed they seek truth only to resolve the dispute. Resolving disputes is the court's primary purpose, and the certain discovery of truth is not indispensable to ending disputes. Courts are satisfied if a claim is shown to be somewhat more likely to be true than not. Courts are not to be deterred from making a decision because the matter is beset with doubt. The pure scientist seeks truth for its own sake and admits as truth only that which is relatively free from doubt.

The dividing line between what courts do and what scientists do may not be absolutely clear at all times, in all contexts. Yet judges and lawyers rarely regard their work as science and, in this respect, nearly all scientists agree with them.[7]

We do not practice science in court and we do not insist that our expert witnesses do either. Rule 702 allows us to hear not only scientific knowledge but

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[5]and epicenters and epicycles, etc.

[6]The sailor's lore would be valid and Eudoxus, Ptolemy, copernicus, and Kepler would have agreed with all of it and with each other. Their disagreements (the unreliability) arises elsewhere. It is true the way in which science develops over time is seriously debated. An influential view is found in T. Kuhn, The structure of Scientific Revolutions (2nd ed. 1970). Even under Kuhn's view the good scientific theory is simple, consistent, broad, accurate, and a fount of prediction—for Kuhn these may not be the crucial virtues but they remain essential. See Kuhn, "objectivity, Value Judgment and Theory Choice" (Lecture 1973).

[7]The practice of physicians is a useful example. As scientist, the physician explores anatomy, biochemistry and so forth. Reliability and validity are often achieved. As healer, the physician tries to resolve problems presented by disease and defect. These resolutions are sometimes scientific, sometimes not. It is not uncommon for physicians' opinions about diagnosis and treatment to be less than reliable and valid. This is why physicians often say (with less truth today than in the past) that medicine is an art, not a science.

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"scientific, technical, or other specialized knowledge [which] will assist the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702.

The twin hallmarks of reliability and validity ought to serve as a standard against which experts' evidence is to be measured. It may be too much to ask that the courtroom expert be adept in a discipline with the reliability and validity of parts of inorganic chemistry. But it is reasonable to inquire how close the expert's discipline is to achievement of reliability and validity and to take this into account in deciding whether to admit the expert's opinion. Absent some degree of reliability and validity, we may have words that sound "scientific, technical, or ... specialized" but we will not have knowledge.

It can be argued that courts ought simply to admit opinions of experts without any inquiry whether the area of expertise is a field of knowledge. If the expertise is flawed it can be met with evidence that proves these flaws. For example, the prosecutor in a criminal case might counter a defense psychiatrist with another psychiatrist to testify that any psychiatrist, including the defense psychiatrist, does not know enough to testify with any degree of certainty. Courts will sometimes defend the admission of expert testimony because the other side can defend itself by calling its own expert. Sherrod v. Berry, 629 F. Supp. 159 (N.D. Ill. 1988). As a principle that justifies admission of evidence, it goes too far because it would permit an astrologer to take the stand and say, "Smith, an Aries, could not have had (or must have had) an intent to defraud on November 18." Surely another astrologer could be found to disagree or to say that astrology is not knowledge.[8]

I conclude then that before I admit the evidence of an expert in a discipline whose acceptance by courts has not been established by binding precedent[9], I should assess the degree to which the discipline is characterized by reliability among its practitioners and by validation of its theories. The higher the degree of reliability and validity, the more likely the evidence will be admitted. Neither courts nor scientists agree what precise degree is required for entry into the canon of science or admissibility. I would be satisfied if we excluded what we sometimes admit, that is, expertise with virtually no reliability and no validity.

There is a price to be paid for this and, as the required degree of reliability and validity increases, so does the price. The price is the exclusion of evidence shown by later studies (perhaps years later) to have been scientific. This price ought to be paid and courts have so said. In fact, it is inherent in the application of Frye. Courts will lag behind scientists as far as science is concerned. The risk to justice from pseudoscience is substantial, and we avoid this risk by requiring some showing of reliability and validity either by direct proof or by proof of acceptance by the appropriate scientific community.

I do not suggest that the inquiry into reliability and validity is by itself sufficient.[10] The witness must be "qualified as an expert by knowledge, skill, experience, training or education." Fed. R. Evid. 702. The knowledge must also "assist the trier of fact to understand the evidence or to determine a fact in issue." Id. The ability of the opposing party to call an expert with a contrary opinion may protect against bad science—the incompetent use of a real science—but it does not offer adequate protection against false or unproved science.

The question today is whether I ought to interpret the law to permit an economist to testify as an expert on the monetary value of the pleasure of Brian Mercado's life. Brian Mercado is about eleven years old. He has significant mental and emotional deficits. He will likely never be able to hold a job or live alone. Psychiatric treatment is likely to be a consistent necessity. Brian Mercado was in kindergarten when he went with his family to visit the Museum of Science and Industry. In the parking lot he was struck by a taxicab and was injured. The jury found the taxicab driver was negligent. Assuming that the taxicab accident caused Brian Mercado an injury which turned him from a normal child into a severely disabled one,[11] there is no question that Brian Mercado

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[8]In theory, astrology could be a science if reliability and validity were established, so could graphology (discovering mental states from handwriting), or phrenology (discovering character from conformation of the skull). The door to science's house is open to anything reasonably reliable and valid. Much of modern science rests on premises that would have been (and, in some cases, were) laughed at within our century. A good deal of medicine has become science only in the latest decades by using statistical techniques, and systematic studies and by improving methods of observing the operation of the living, uninvaded human body.

[9]The Seventh Circuit's decision that affirmed the admissibility of this evidence, 827 F.2d 195 (7th Cir. 1987), was vacated, at 835 F.2d 1222 (7th Cir. 1988). The Seventh Circuit en banc then reversed the District Court on other grounds and stated: "We leave [the district court's other evidentiary rulings] for the district court on remand to decide in light of this court's prior discussions of those matters, specifically those found in our earlier vacated opinion." 856 F.2d 802, 808. Those discusslons are not binding precedent.

[10]Reliability and validity are good tests for any expertise, eg., the police officer explaining drug or gambling business argot and procedure or the mechanic explaining the operation of a thresher.

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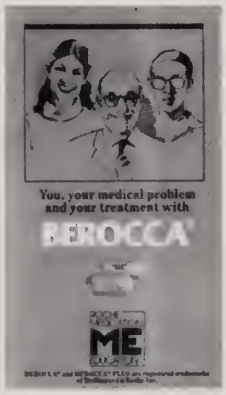

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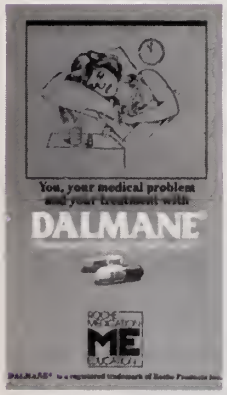

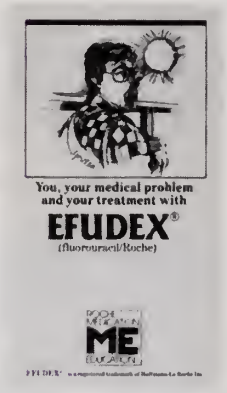

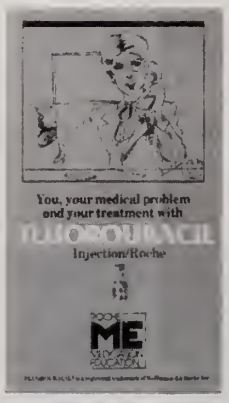

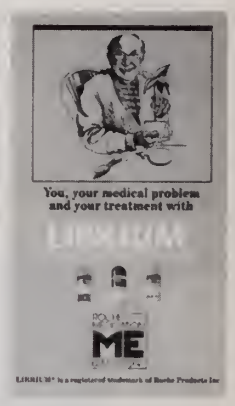

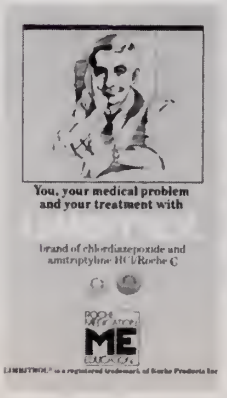

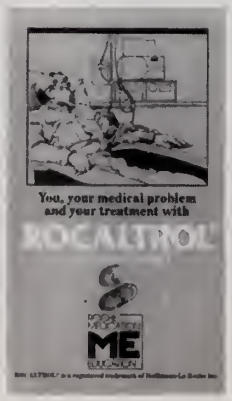

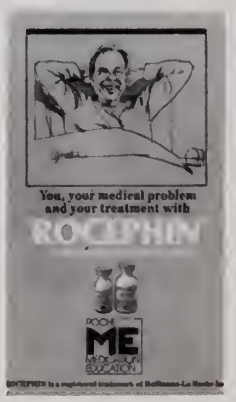

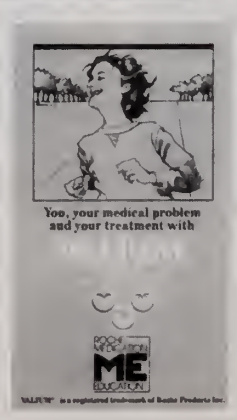

has lost a considerable degree of the pleasure of life. Assuming that Illinois law allows recovery for this lost pleasure of life[12] the jury would have to quantify the dollar value of this loss. Brian Mercado offers an economist whose testimony I heard outside the jury's presence and who is prepared to opine that this value in Brian Mercado's case lies between $1,500,000 and $2,500,000.[13] The taxicab driver and the taxicab company say that this is not admissible.

This kind of evidence is well described in T. Miller, Willingness to Pay Comes of Age: Will the System Survive?, 83 Nw. U.L. Rev. 876 (1989). In brief, Miller notes that economists are researching the "ways to measure the value that individuals place upon reducing the risk of dying" by examining the markets. Id. at 878-79. They examine "what people actually pay—in dollars, time discomfort, and inconvenience—for small reductions in health and safety risks." Id. at 879. Of particular significance, economists have estimated the values people place on risk reduction based on the following factors: 1) the extra wages employers pay to induce people to take risky jobs; 2) the demand and price for products—such as safer cars, smoke detectors, houses in polluted areas, and life insurance—that enhance health and safety 3) the tradeoffs people make among time, money, comfort, and safety—in studies involving pedestrian tunnel use, safety belt use, speed choice, and drivers' travel time: and 4) surveys that ask people about their willingness to invest money to enhance their health or safety. Id. at 880-81.

However, there is no basic agreement among economists as to what elements ought to go into the life valuation. There is no unanimity on which studies ought to be considered. There is a lack of reliability. In fact, Smith was prepared to testify based on seventy or eighty studies: Miller relies on twenty-nine: in Sherrod v. Berry, 629 F. Supp. 159, 163 (N.D. Ill. 1985), Smith testified on the basis of fifteen studies. Smith acknowledged that more studies could be done on the willingness-to-pay issue. In particular Smith noted that further studies will focus on a set of consumers to uncover when these consumers make or do not make choices for safety, and these results may help establish validity. The fact that the bottom lines of most studies (between less than $100,000 to more than $12,000,000)[14] arguably do not wind up very far apart (by some definitions of "very far") may be coincidence and not the result of the application of a scientific method.

Survey of attitudes and views of others as a basis for concluding something is true is not necessarily wrong. Some science as it comes into court is the result of consensus by practitioners of some area of expertise that a certain law of nature is correct. What is wrong here is not that the evidence is founded on consensus or agreement, it is that the consensus is that of persons who are no more expert than are the jurors on the value of the lost pleasure of life.[15] Even if reliable and valid, the evidence may fail to "assist the trier of fact to understand the evidence or determine a fact in issue" in a way more meaningful than would occur if the jury asked a group of wise courtroom bystanders for their opinions.

For the reasons stated here and in open court, I grant the defendants' motion to bar testimony of plaintiff's expert, Stan V. Smith, on the issue of hedonic damage.

James B. Zagel
United States District Judge

Date 2/08/91

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[12]The jury did not find this to be so. There was medical testimony and testimony by Brian Mercado's kindergarten teacher that Brian Mercado's woes (and they are quite real) existed before the taxicab struck him. The jury accepted this evidence against contrary testimony of other physicians and members of Brian Mercado's family.

[13]Sometimes called hedonic damages.

[14]The testimony here does not depend on regression analysis which is often the basis of the correlations made by social scientists. Regression analysis is an accepted method of scientific investigation to establish correlations by controlling all factors which cause some particular state of facts. In practice the use of the method is flawed by poor basic data, unstated assumptions and unskilled application. Some think that regression analysis can never really work. A. Wildavsky, "What Would One Have to Believe to Believe in Multiple Regression", 27 Contemp. Psychology 903 (1982).

[15]T. Miller, "Willingness" to Pay", at 883.

[16]As I noted in open court, I do not regard this proferred testimony and this theory as either pro-defense or pro-plaintiff. Nor do I question the possible utility of this evidence for a legislature wishing to adopt, by statute, a table of damages.

Are Your Patients Managing Your Finances?

Virginia A. Borgeson and Pat Smith, I.C. System, Inc.

If you didn't write your own policies for managing your accounts receivable, then who did? Are the people who owe you money deciding when and if you will be paid?

Successful managers understand the importance of a comprehensive accounts receivable system. MONEY is the name of the game. Those who have it and use it wisely are successful; those who don't are subject to rapid failure. Take control! Here are some tips for managing this critical function.

First, begin with the establishment of a definite policy regarding the extension of credit. The individual characteristics of your practic and competitive environment will affect your policy. You may consider everything from no extension of credit in order to achieve a zero accounts receivable balance, to a liberal granting of terms to selected classes of patients. In particular, your policy should assign the responsibility for managing accounts receivable to only one person, and this person should report and be accountable to senior management.

An example of a simple credit policy might be:

- All credit applicants must complete a credit application.
- All credit applications must be approved by senior management.
- All approved credit applicants must be given an explanation of payment schedules and dollar amount limits.
- Credit will not be extended to any patient whose account is 60 days past due.

Different accounting transactions present unique accounts receivable problems and some require more careful planning and control than others. For instance, a doctor who receives payments from insurance companies may have to institute one policy to handle insurance payments and timing, and another for directly billed patients. A supplier may have a policy for his small retail customers, and a separate policy for large wholesale buyers. The point is, different types of transactions require different handling and timing to maximize accounts receivable results.

Even with a credit policy in place, you may not be the manager of your finances. Past due accounts are the nemesis of every business. Yet, if you don't address this issue, you're letting your least profitable customers establish your policy for amounts which might equal or exceed your whole bottom line performance.

Every business which extends credit needs to establish, at the same time, a firm policy for handling past due accounts. Collection policies are as critical as credit policies.

A collection policy can be as simple as your credit policy. For instance:

- The Accounts Receivable Manager is responsible for all collection activity.
- An account becomes eligible for collection activity when it becomes 60 days past due.
- An account receiving collection activity will be pursued for 45 days.
- After 45 days, all unpaid accounts will be turned over to an outside professional collection agency.

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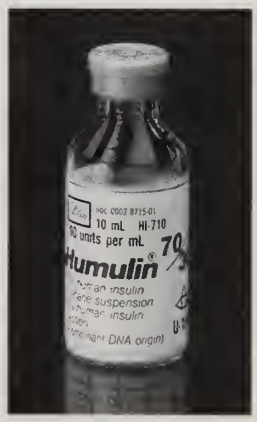

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Don't Write Off RBRVS

Stephen A. Davis, M.D., President
Alabama Society of Internal Medicine

When the Resource-Based Relative Value Scale first came onto the health policy scene, physicians supported it because it would introduce fairness and rationality into the Medicare payment system, unite the medical profession, and, most of all, because it would be good for patients. But lately, I've been hearing many of my colleagues say they've become disillusioned with the RBRVS's implementation—they don't trust the federal government to live up to its end of the bargain.

Well, I don't trust the federal government to live up to its bargain, either—at least not without concentrated pressure to do so. But I don't think the medical profession should write off the RBRVS. Despite many problems—some immediate and some potential—it still will do what it was intended to do.

For instance, under the RBRVS, relative values are expected to increase substantially for most evaluation and management (E/M) services. Skeptics have suggested that the RBRVS will be used only to cut surgical values—and fees. New estimates show, however, that the RBRVS will increase relative values for E/M services by 30% on average, and that, as a result, Medicare payments for these services still will increase substantially above 1991 payments under a "budget neutral" RBRVS fee schedule.

Better yet, the RBRVS protects undervalued evaluation and management services provided by all physicians even when the budget is cut. Consider what would happen to a $30 office visit from 1991 to 1996 under a purely hypothetical scenario in which fees normally would have been given a 15 percent inflation update, but Congress cuts payments 10 percent below inflation. In 1996, that same office visit fee would total $31.05 without the RBRVS. With the projected 30 percent gain for E/M services expected under the RBRVS, it would total $40.36. Especially in this budget-cutting climate, the RBRVS will protect fees for the E/M services all physicians provide.

Exactly what effect there will be on an individual's practice depends on several factors, however. Because of elimination of geographic differentials and limits on balance billing, for some there will be no actual gain (or even a reduction) for E/M services. Where physicians practice, how often they accept assignment, how much they charge in excess of Medicare's "approved amount" for unassigned claims and their mix of services will determine the effect on their practices. But regardless of each individual's gain or loss. the RBRVS will enhance payments overall for physicians' E/M services compared with what would have been.

Another benefit is that the RBRVS allows physicians to unite for a fair conversion factor and to oppose further cuts in the Medicare program, rather than engaging in internal squabbling. The conversion factor that makes the RBRVS into a real fee schedule applies to all physician services. That means the entire profession has a stake in making sure it's fair and an incentive to work together to stave off future Medicare cuts. In fact, every medical group that testified before the Physician Payment Review Commission last December, including the American Medical Association, the American Society of Internal Medicine, the American Academy of Family Physicians and the American College of Surgeons, opposed HCFA's proposal to lower the conversion factor. HCFA has indicated it will assume volume will increase and that it will set the conversion factor lower to make up for that assumed increase.

The RBRVS also provides a basis for opposing unfair cuts in specific procedures. For example, the profession can argue that the ban on reimbursement for most EKG interpretation is contrary to the RBRVS, because the study said the service indeed has a value. The influential Physician Payment Review Commission agrees, giving the profession a real opportunity to get this cut reversed. Without the RBRVS, it would have been far more difficult to make that case.

Continued support for the RBRVS allows the profession to be for—not just against—something. If it

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wasn't for the medical profession's support for the RBRVS, we'd all be worse off. No one can say that change wasn't coming. Those who don't like the RBRVS and limits on balance billing should consider the alternatives: mandatory assignment, MD-DRGs, and fees set by the government without any professional input. The RBRVS gives the profession a voice-and it enabled us to ward off more objectionable measures.

Finally and most important, the RBRVS is good for our patients. It will increase the emphasis on preventive care and on evaluating and managing their treatment, and decrease the emphasis on costly high-tech services. It also will help improve access to care in underserved rural areas.

So you see, to paraphrase Mark Twain, reports of the death of the RBRVS are greatly exaggerated. But medicine can't rely on trust that everything will turn out okay. We must fight to preserve the promise of physician payment reform.

That means opposing policies that will undermine the RBRVS (such as a behavioral assumption that would lower the fee schedule conversion factor). It means working to change policies—such as the ban on reimbursement for EKG interpretation—that give with one hand and take away with the other. And it means supporting further changes that will make the system even better.

The RBRVS unites physicians under one fair and rational payment system to fight future detrimental budget cuts in Medicare. Lawmakers faced with a divided house of medicine easily can use that division to cut Medicare payments even further. But if they're faced with a profession that's united under the RBRVS, it won't be so easy.

Support for the RBRVS has been right—for our profession and for our patients. The RBRVS will protect undervalued evaluation and management services in an era of Medicare budget cutting, increase access and the emphasis on preventive care for patients, and introduce fairness into the Medicare payment system. But we must fight together—as a profession—to make sure it is implemented in the way Congress intended.

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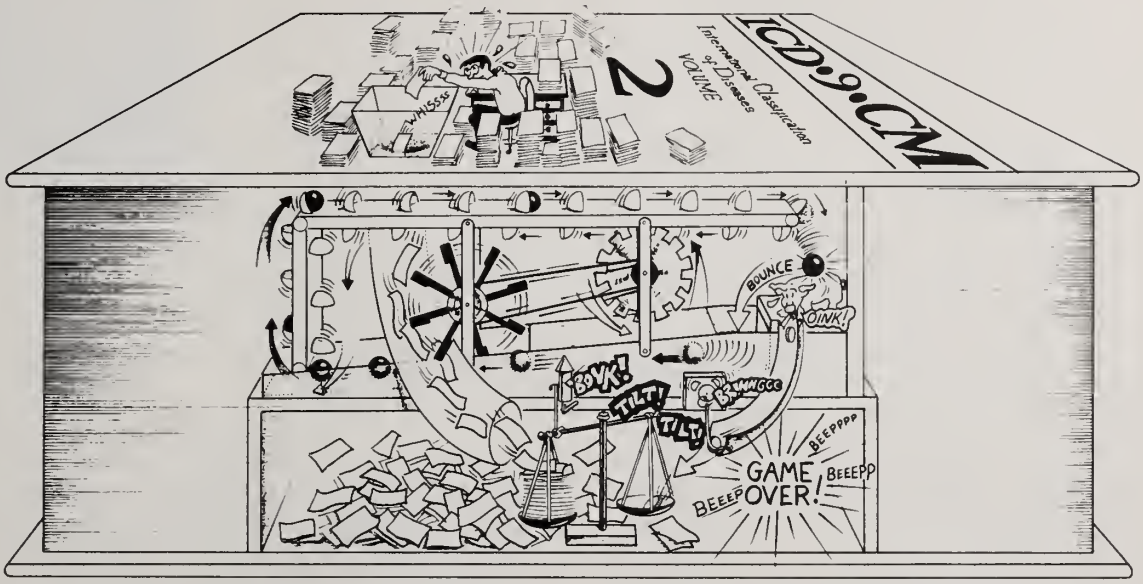

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Mrs. Charles Patterson
A-MASA, President

A New Season

At this writing, I sit in my garden and absorb the welcomed sights and fragrances of an early spring. I am anxious to begin preparation for a new season filled with colorful blossoms. I must confess the desire to transplant, divide, rearrange, weed, and sow new seed is greater than the desire to write. These garden tasks that I enjoy so much will have to wait just a little longer. It is exciting to anticipate a new season with the possibility of having brighter and more beautiful cascades of color than the last.

The elected and appointed officers, county presidents and their respective boards serving during the 1990-91 A-MASA year have given their very best to our organization. Our leaders across the state have bloomed beautifully where they were planted and much has been accomplished in each of our organized auxiliaries. Their enthusiasm and devotion to this organization are evidenced in the outstanding programs and successful projects carried out during the year. Many of these projects have been discussed in previous articles for A-MASA page of this journal. I hope that you will seek out the auxiliary officers in your county and thank them for the splendid job they have done this year.

The successful auxiliary projects—auctions, fashion shows, sales of items from stationery to shirts, health fairs, blood drives, and health education programs—have all fulfilled the common auxiliary objective of meeting the health needs of our communities. County leaders have diligently planned programs for their varied memberships which offered opportunities for in depth study of health and environmental issues, physician impairment, time management and the role of the auxiliary as a support group for the medical family.

Scholarships in health related careers continue to be important to every auxiliary. Many auxiliaries provide funds for educational opportunities in local colleges and trade schools and contribute to our only state wide fund raising scholarship project, AMA-ERF. To date $37,504.00 has been collected for this scholarship fund. Blue ribbons to our chairman, Donna Gosney, and co-chairman, Leta Mathews, for all of their efforts in making this wonderful accomplishment possible.

Our membership team, led by Margaret Mitchell and our four district vice presidents, has worked exceptionally hard to maintain a solid auxiliary membership base in our state. With a total of 7,119 (based on 1990 licensees) physicians in Alabama, with 5,390 of these physician members of MASA, we have a tremendous opportunity to increase our membership. We need your help. Encourage your spouse to join the auxiliary in your county or to become a member-at-large. Contact Dale Griggs, 1009 Brookridge Circle, Huntsville, 35801 (881-0284) for membership information.

The auxiliary has had a good year. We have enjoyed our relationship with the Medical Association and its very professional, courteous, and always helpful officers and staff. We appreciate the encouragement and the support of MASA, and the generous gift of printing our newsletter, yearbook, programs and special camellia cards for AMA-ERF. We are excited

over the first video of an auxiliary project, The Chickasaw School Project. This video was produced by C. Holley Midgley and the MASA Public Relations staff. It will be shown during our annual convention with plans for it to be used again in October and February during the AMA Auxiliary Confluence sessions. Working together we can continue to support each organization and MAKE A DIFFERENCE in improving healthcare in Alabama.

And springtime comes to A-MASA as we embark on a new auxiliary year with a very well-qualified leadership team led by Jessie H. Bean serving as President. With an energetic and capable appointed board already in place, the year ahead promises to be filled with new ideas and projects that will continue to strengthen the organization and produce many blossoms of success.

Mrs. Bean brings to our state auxiliary a wealth of leadership skills and a genuine desire to support the medical profession. In 1972 she married Dr. Stuart Bean, an Emergency Medicine physician, bringing with her four children to join his nine. Since their marriage, the Beans have lived in Hoover and raised this very special and successful family. Leading 27 organized auxiliaries will be just another pleasant task for this outstanding lady!

Jessie was the last Director of Nurses at the Jefferson Tuberculosis Sanatorium, and upon its closing, she became the first Director of Nurses at the Lakeshore Rehabilitation Hospital in Birmingham. After two years, she decided to stay home and work to blend the two families and help them prepare to meet the world.

Now that the nest is almost empty (only five more weddings to go) Jessie had been actively working in her church and community. She has served on the boards of the Salvation Army, Kidney Foundation, Birmingham Humane Society, Hoover Cancer Society, Hoover Historical Society, Intra-State Parliamentary Unit, Ikebana International, Jefferson County Medical Auxiliary, and the Evangelical Lutheran Church in America. In 1989 she was nominated for the Alabama Mother of the Year Award. A-MASA in fortunate to have Mrs. Bean leading the organization.

The 1990-91 officers and committee chairmen join me in wishing Mrs. Bean and the members of the new A-MASA Board the very best in the year ahead.

Dear Carl,

Congratulations on your new medical staff leadership position! Now you're not only a physician – you need to be a manager, negotiator, arbitrator, and even a parliamentarian. I wish I had received some special training when I first took a position like yours!

Sincerely,
Helen

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Alabama Medicine

JOURNAL OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

A man is not old until regrets take the place of dreams

Lighten Up, Doctor — pg. 2

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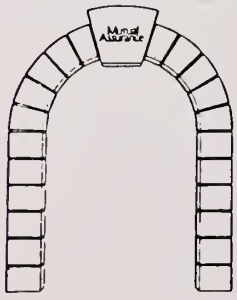

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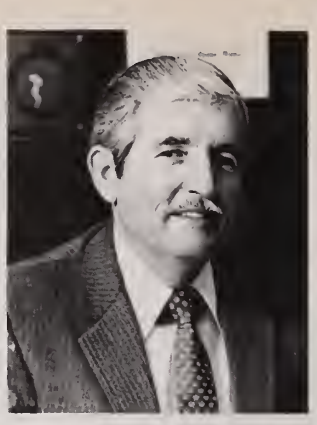
In This Issue

EXECUTIVE DIRECTOR



S. Lon Conner
Executive Director, MASA

Lighten Up, Doctor

Eight years ago in this space, my column was captioned,"Take Time to Smell The Roses."

Actually, it was a take-out from an *Alabama Medicine* profile on Dr. Max Cooper, the UAB immunologist. During this period, Dr. Cooper was one of the most often cited scientists in the world.

Although a dedicated and highly motivated investigator, Dr. Cooper mentioned in the interview that, except for one brief period in his life, a time when he was unsure of himself, he had always managed to have his fun as we went along, never waiting for that improbable day when he would have time to do all the things he wanted to do. He said:

"It's so easy to defer your reward. When you are competing to get into medical school, you say: 'Wait until I get in, then I'll take some time off and have some fun. Then I can enjoy my relationships with other people. Develop an outside interest. Read something that may not be directly pertinent to science or medicine.'

"That same logic is easy to follow at the next stage of training: 'Wait until I am a resident.' Then, 'Wait until I am in practice.'

"Then your family comes along, your patients are pressing, and you say, 'I'll take those trips and have some fun, and get a little time off for this or that — later. After the children are grown and out of school, maybe.' It's always later.

"First thing you know your life is over, and you couldn't enjoy the things you had always wanted to do, even if you have all the necessary time and money. Because by then you don't have the health you did, or the interests, and perhaps not the capacity for pleasure. The Golden Age you had been promising yourself, step after step, has eluded you."

In medicine, Dr. Cooper said, putting off the pleasures of life — the pleasures of *living* — gets to be a habit early and can be a lifelong trap for the physician.

"I haven't lived my life waiting for the Golden Age," he says. He has taken his fun, like his work, as it came, in regular, heavy doses. Perhaps, I observed in that column, that is why Dr. Cooper laughs at a lot. In fact, his lab at UAB was noted at the time as atypical. The sounds of laughter could always be heard emerging therefrom, another example of what the great writer/physician Louis Thomas meant when he wrote that the sounds of laughter emerging from the labs of new York's Memorial Sloan-Kettering told him great things were happening.

I noted in that column that some psychiatrists say that physicians tend to be among the most tragic victims of "anhedonia," the inability to have fun, which probably accounts for the high rate of burn-out and impairment in the profession. Too many physicians, it appears, learned all their lessons well save one — they never learned to balance intense work habits with play. Thousands upon thousands of physicians go on putting off Dr. Cooper's Golden Age, until it's too late for them to fulfill all the promises they made themselves decades earlier. Tomorrow never came.

Most of those drawn to medicine are compulsive

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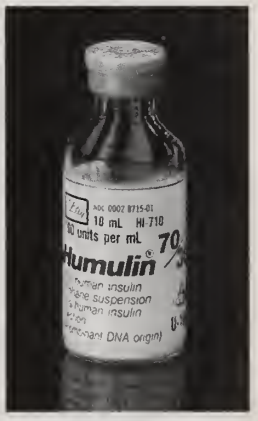

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by nature, even and nature dies hard. They are propelled through their careers by a great force of duty that leaves them little time or inclination to smell the roses.

Some time after this column appeared, I learned that a couple of doctors had clipped it and put it in a prominent place, as a reminder to gather their rosebuds while they may. Whether they did or not, I never learned.

I was reminded of Dr. Cooper's sage advice just recently when I read the cover story in the *LACMA Physician*, published by the Los Angeles County Medical Association. The article replicated Dr. Cooper's advice of 1983 — "Lighten Up, A Sense of Humor May Save Your Life."

The story was about the work of a California motivational speaker, one C.W. Metcalf, who had been found to be a wonder drug by physician groups. Mr. Metcalf has obviously studied the U.S. physician for a long time at close range. His diagnosis: most doctors are suffering from "terminal professionalism."

Many physicians go around repeating,"Look, I'm dead serious." They are so serious all the time, Mr. Metcalf says, that this becomes a self-fulfilling prophecy—they are soon dead. They boast of the unrelieved stress of their lives. Mr. Metcalf:

"Stress has become the red badge of courage in today's workplace. It's almost like a game: how sick can you get and still come to work?" Too often, he says, there follows a pattern he calls "suicide by smiling." It can be seen in the stiff-upper-lip colleague who seems to trying to foster a myth of invincibility. He will walk around and tell colleagues: "I'm fine, really, I'm fine. I'm just fine. I'm on the verge of bankruptcy and I'm losing my practice, but I'm fine. My family? They left me but I'm fine." Mr. Metcalf tells his patients, the doctors to whom he lectures, "Take your work seriously, but yourself lightly. It's a learned skill and is a natural element to work survival. The key is to sense the absurdity of a situation and thereby gain control over it."

The saying dear to the hearts of football coaches, "When the going gets tough, the tough get going," may work well enough for a two-hour game. But in the long haul of an intensive work environment such as doctors must endure over the grueling years, the Metcalf variant is: "When the going gets tough, the tough get loose." He explains:

"When you get tough, you get tight. When you get tight, you get brittle. And when you get brittle, you break." Those who are able to shuck terminal professionalism, he says, learn to remain fluid in the midst of changes and pressure." The bottom line:

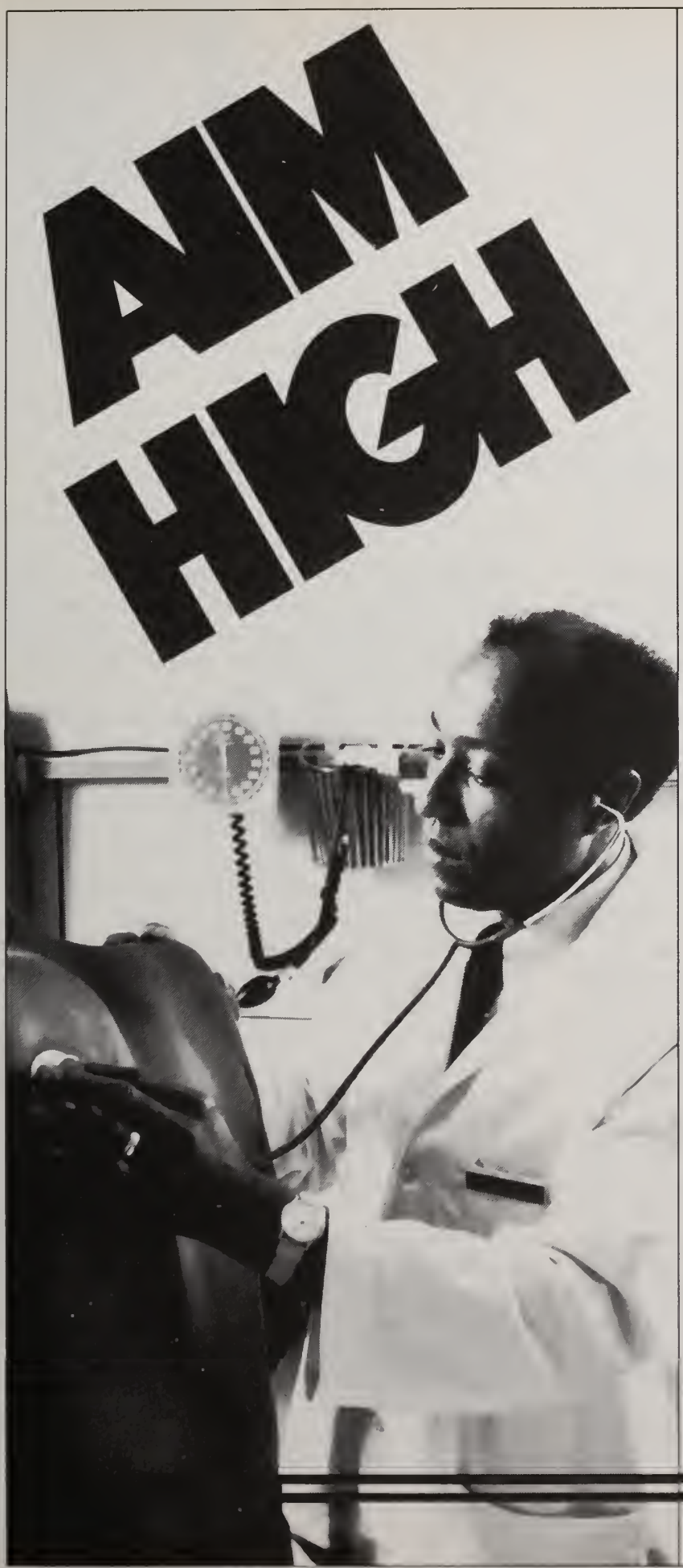
"I've never known anyone on his deathbed who looked up and said, 'You know, before I die, I need to go the office and put in a few more hours.' They don't say, 'I wish I had driven a Lamborghini'."

Instead, they say they wish they had had more fun in life. They had spent all too much of their brief earthly existence putting off the Cooper Golden Age.

This being the vacation season, perhaps some physician spouses out there will clip this and post it over the bathroom mirror for their doctor mate to see as he/she prepares for another day of total responsibility and stress, unrelieved by even the thought of seizing that Golden Age before it slips from grasp forever, leaving only the dead leaves of regret.

John Barrymore may have had the last word on the subject:

"A man is not old until regrets take the place of dreams."



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PRESIDENT'S PAGE

William D. Lazenby, M.D.
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Is Organized Medicine Dying?

The pinnacle of medical practice we all enjoy was achieved for us by physicians of ages past. Suppose those long-gone physicians has said, as so many of their successors say today, "let George do it." Where would we be?

The history of our profession until recent years was one of virtually total involvement, as all put their shoulders to the wheel to advance our art and science that now benefits us and so many millions of Americans.

Progress in our profession, as in all worthwhile ventures, can never come to rest. If it does, entropy sets in, the gyroscope wobbles; thrust, direction, and purpose are lost. This seems to be true of all institutions and civilizations. They begin, as ours did, by responding aggressively to challenges and threats to their existence. But the phenomenology of growth, maturity and senescence, of ideas as well as institutions and states, repeats a familiar pattern. If allowed to languish, through complacency, resignation, and surrender, or through a decay of inner vitality, cities, countries and institutions begin to spiral downward, slowly at first, then with increasing velocity, almost as if they were obeying the second law of thermodynamics.

Paul Kennedy's alarming book, *The Rise and Fall of the Great Powers,* showed the patterns of ascent and descent that characterized the many empires of the past—the Roman, the Greek, Spanish, French, Dutch, British. All had their hour in the sun and all lost it. A common denominator of their rise was an indomitable spirit of challenge and response, a driving force of destiny. A common denominator of their fall was a loss of this sense of mission and purpose. Deprived of the essential inner will to prevail, they fell into decadence and decay.

Is something similar happening to medicine?

The centuries-long struggle of the medical profession to arrive at the point it is today, a point at which the American people enjoy access to the finest health care in the world, was never an easy one. Our professional predecessors had to fight not only pestilences, with woefully few weapons, but public ignorance, political hostility, and quackery in a thousand forms. In their quest for excellence, our forebears had to overcome great resistance to achieve professional quality, better medical schools, higher standards of practice, credentialing and licensure.

In this country they had to fight the all-pervasive *laizzez-faire* spirit of indifference to any profession that sought to pull itself up by the bootstraps. They had to fight anti-intellectualism in their insistence on top-drawer medical education and exacting licensure.

They were put down as "elitists" in the country of the Common Man. They were accused of attempting to restrict the practice of medicine to feather their own nests, not because of the public interest. By striving to limit medical education to the best students, they were targets of cheap shots from politicians and other critics for attempting to build a "cartel," thus to insure that demand would always exceed supply and that normal market forces controlling

price would be held in abeyance.

Our predecessors met such calumnies, which were far worse than any we are targeted with today, by engaging their enemies on every front, by never raising the white flag. They fought and fought, asking no quarter and giving none. They were convinced they were right and their strength was multiplied by that conviction.

We are the beneficiaries of their many battles, their determination and fixity of purpose. They bequeathed to us and our patients of this, the last decade of the 20th century, a sacred trust.

Not only are we honor-bound to preserve that legacy, we are bound by the collegiality of medical tradition to enlarge on it and pass it on to the next generation of physicians, as they must then do for the next.

It distresses me greatly to hear established physicians, those who have benefited enormously by this bequest of medicine, espousing gloom and doom and defeatism, badmouthing not only the state of the profession but those leaders who have tried to make a difference. It has been my impression that many of the loudest Cassandras, those crying ruin and hopelessness, those who say they would steer their sons and daughters away from our profession—that, by and large, these are the ones who make the least effort to participate in organized medicine.

I do not like invidious comparisons, but a look at the attendance at the annual business meeting April 20 in Birmingham is instructive: of the 67 county society presidents, 20 registered; that's 29.85%. In all, 96 Counsellors and 87 Delegates registered out of a total of 361 voting members of the College of Counsellors and House of Delegates—50.69%

And, apparently, some of those who registered didn't bother to attend the business meeting. One significant recorded vote, on an issue of statewide importance, found only 126 participating—34.9% of the formal constituency of the College of Counsellors and House of Delegates. That is disturbing.

Small wonder, then, that we see arising in this session of the Alabama Legislature a whole host of doctor-bashing measures. Small wonder that a member of the United States Senate said recently that almost anyone in that august body felt free to attack physicians with impunity because we were hopelessly divided.

Too many of our number seem to arouse themselves only occasionally to pronounce the end of the profession and/or to decry a new intrusion by state or federal government, soon to be followed by imitations from the private sector. "Why doesn't somebody do something?" they shout in righteous indignation.

There are no magicians, no Merlins, in the ranks of the medical leadership at any level. There are only hard-working, concerned physicians carrying on the tradition of professional salvation, pushing forward when they can, falling back when they must. Sometimes damage control is the only option in today's climate. When some compromise is struck, those critics out there, sitting on their hands, berate their leaders as something close to traitors fashioning yet another "sell-out."

Were you there when the troops were mustered? It is not enough to sit on the sidelines. We're all great Monday morning quarterbacks. Hindsight is a universal gift. Medicine needs foresight, total participation and constant involvement of all physicians. Since emergencies often arise, in Congress or the Alabama Legislature, you should remain tuned at all times.

But physician involvement implies more than active participation in organized medicine. It also includes your involvement in the community as a good citizen. We have been remote for too many years, I fear. This handicaps us in several ways. We are out of touch with what the public thinks of us beyond our offices. We develop no true loyalties in the community, no associations we can call on when our ox is being gored. Think what a mighty force of public opinion it would be if every physician in the land actively participated in the affairs of his community, shoulder to shoulder with other citizens in pursuit of common goals for the general welfare. All the billions that might be spent on "image-building" by the best PR groups in the land could not approach that.

There may have been a time when we could enjoy the painless indifference to participation in organized medicine and in community affairs. If those years existed, they have long since ended.

It is the solemn duty of every physician to involve himself in the concerns of his profession at the county, state, and national levels. If we break faith with those who fought so long and hard to bestow on us the great blessings of private practice and professionalism, we will have betrayed a solemn trust and we will have broken the chain of centuries of professional advancement.

We will suffer, our patients will suffer and we will have passed to our successors an extinguished torch. Is that the epitaph we want for our generation of doctors?

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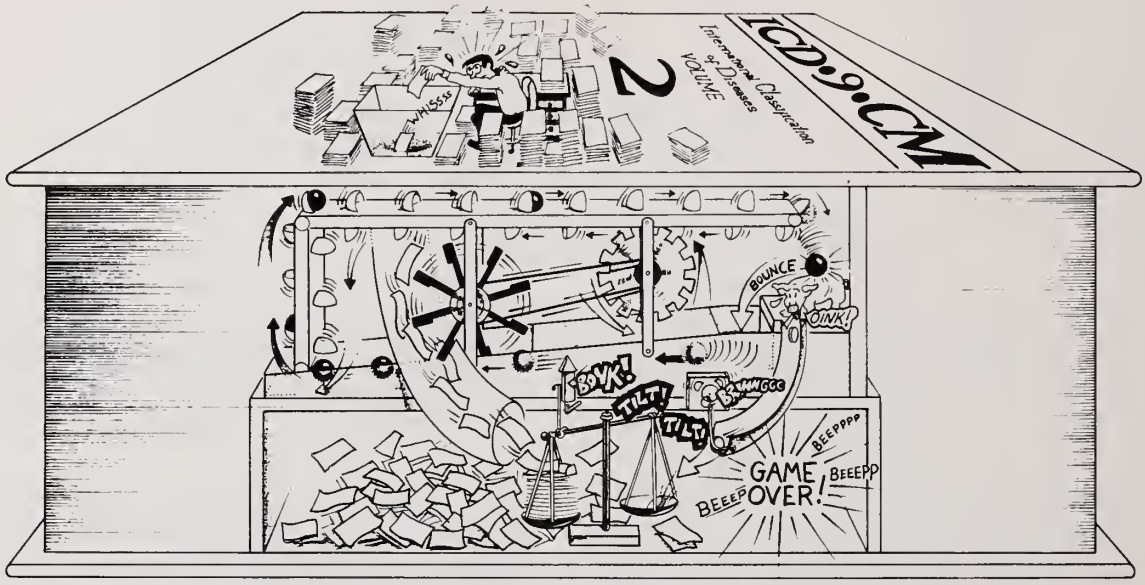

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Staphylococcus Aureus Endocarditis in Community Hospitals

*LeRoy F. Harris, M.D.**

Abstract

We compared 13 cases of *Staphylococcus aureus* endocarditis from community hospitals to previous series all of which originated from university or tertiary care hospitals. In our experience *Staph. aureus* was the third leading cause of endocarditis and accounted for 20% of cases. The infection presented as one of three syndromes: native valve endocarditis, prosthetic valve endocarditis and endocarditis in drug addicts. Laboratory data revealed leukocytosis; infiltrates, nodules, congestive heart failure and cardiomegaly were seen on chest x-ray; and echocardiography infrequently detected vegetations. Criteria which favored the diagnosis of endocarditis in staphylococcemic patients were: absence of a primary site of infection, community acquisition of infection, metastatic infectious sequelae and vegetations documented by echocardiography. Treatment requires prolonged intravenous administration of high dose bactericidal antimicrobial agents; commonly nafcillin or oxacillin combined for a variable period with gentamicin. The mortality rate in our series was 23% and complications occurred in 70% of cases.

Despite the introduction of potent antistaphylococcal antibiotics, *Staphylococcus aureus* not only has survived but actually has flourished as a cause of hospital and community-acquired infections. It ranks second to *Escherichia coli* as the etiology of all types of nosocomial infections and is a leading cause of community-acquired sepsis and skin, soft tissue and trauma-induced infections.[1] One of the more serious manifestations of disease caused by *Staph. aureus* is endocarditis. Most series of *Staph. aureus* endocarditis are reported from university or tertiary care hospitals[2-5] and their comparability to community hospitals is unknown. We present our experience with Staph. aureus endocarditis from the hospitals of a single community and compare our cases with previous series.

Patient and Methods

We reviewed the charts of all patients with a final discharge diagnosis of infectious endocarditis admitted to the three community hospitals of Huntsville, Alabama, during the 11-year period of 1978 through 1989, inclusive. Endocarditis was defined as a compatible clinical illness if two or more blood cultures contained the same organism. Although not required for inclusion in this series, surgical or autopsy confirmation of the diagnosis was sought whenever possible. Endocarditis was considered to be caused by *Staph. aureus* when blood cultures contained only that organism. Charts of all patients with *Staph. aureus* endocarditis were examined in greater detail. *Staph. aureus* was identified on Gram stain as gram-positive cocci which yielded positive catalase and coagulase reactions.

Table 1

Infectious Endocarditis - Huntsville, Alabama
1978-1989

Organism	Number of Cases	% of Cases
Viridans streptococci	21	33
Coagulase-negative staphylococci	14	22
Staphylococcus aureus	13	20
Enterococci	7	11
Nonenterococcal group D streptococci	4	6
Group B streptococci	2	3
Other	3	5
Total	64	100

Note: Other=group G streptococci 1, Cardiobacterium hominis 1, Neisseria subflava 1

*Clinical Associate Professor of Medicine, School of Primary Medical Care University of Alabama School of Medicine at Huntsville, Suite A, 101 Bob Wallace, Huntsville, Alabama 35801.

Table 2

Staphylococcus aureus Endocarditis - Clinical Features

Case	Age/Sex	Predisposing Factor	Valve Involved	Symptoms	Signs	T Max (°F)
1	89/M	Infected IV site	Mitral	Fever, lethargy-2 d	Sys M	101.2
2	85/M	None	Mitral	Fever, chills-1 d	Sys M	103.4
3	77/M	None	Mitral	Fever, anorexia, weakness-2 wk	Sys M	98.6
4	72/M	None	Mitral	Fever, cough syncope-3 wk	Sys M	102.4
5	23/M	None	Aortic	Fever, headache-2 d	Sys M	103.2
6	26/M	Prosthetic aortic valve	Aortic	Fever, chills-1 d	Sys, dias M	103.6
7	56/M	Prosthetic aortic and mitral valves	Aortic, mitral	Fever, dyspnea-1 d	Sys M	104.6
8	56/F	Prosthetic aortic and mitral valves	Aortic, mitral	Fever, chills-1 d	Sys M	102
9	54/M	Diabetes mellitus	Tricuspid	Fever, arthralgia-1 mo	Swollen joint	100.8
10	17/M	Skin abscesses	Mitral	Fever, chills—2 wk	None	103.8
11	58/M	Diabetes mellitus	Aortic	Fever, arthralgia-2 wk	Sys M, swollen joint, Janeway lesion	102.6
12	33/M	IV drug abuse	Tricuspid	Fever, arthralgia-2 d	Swollen joint	102.6
13	32/M	IV drug abuse	Tricuspid	Fever, chills, cough-2 wk	None	103.8

Note: T max=maximum temperature during first 24 hr of admission to hospital or first 24 hr when endocarditis diagnosed (case 1), Sys=systolic, M=murmur, dias=diastolic

Results

Table 1 lists the number and percentage due to individual organisms of 64 cases of endocarditis. Viridans streptococci accounted for 21 cases (33%) followed by coagulase-negative staphylococci 14 cases (22%), *Staph. aureus* 13 cases (20%), enterococci 7 cases (11%), nonenterococcal group D streptococci 4 cases (6%), group B streptococci 2 cases (3%) and other bacteria 3 cases (5%).

Table 2 describes the clinical features of 13 patients with *Staph. aureus* endocarditis. The patients ranged in age from 17 to 89 years and averaged 52 years. All but one patient were males. Predisposing factors to the development of endocarditis were present in nine patients and included infected IV cannula site, prosthetic heart valve, diabetes mellitus, skin abscesses and IV drug abuse. The mitral valve was infected in seven cases, the aortic valve in five cases and the tricuspid valve in three cases including two patients with coexisting aortic and mitral valve involvement. The most common symptom of the patients was fever and less frequently chills, arthralgia and cough. Cardiac murmurs were appreciated in all but four patients and swollen joints and a Janeway lesion were detected in three and one patient, respectively. The maximum temperature during the first 24 hours of hospitalization or the first 24 hours when endocarditis was diagnosed (case 1) extended from

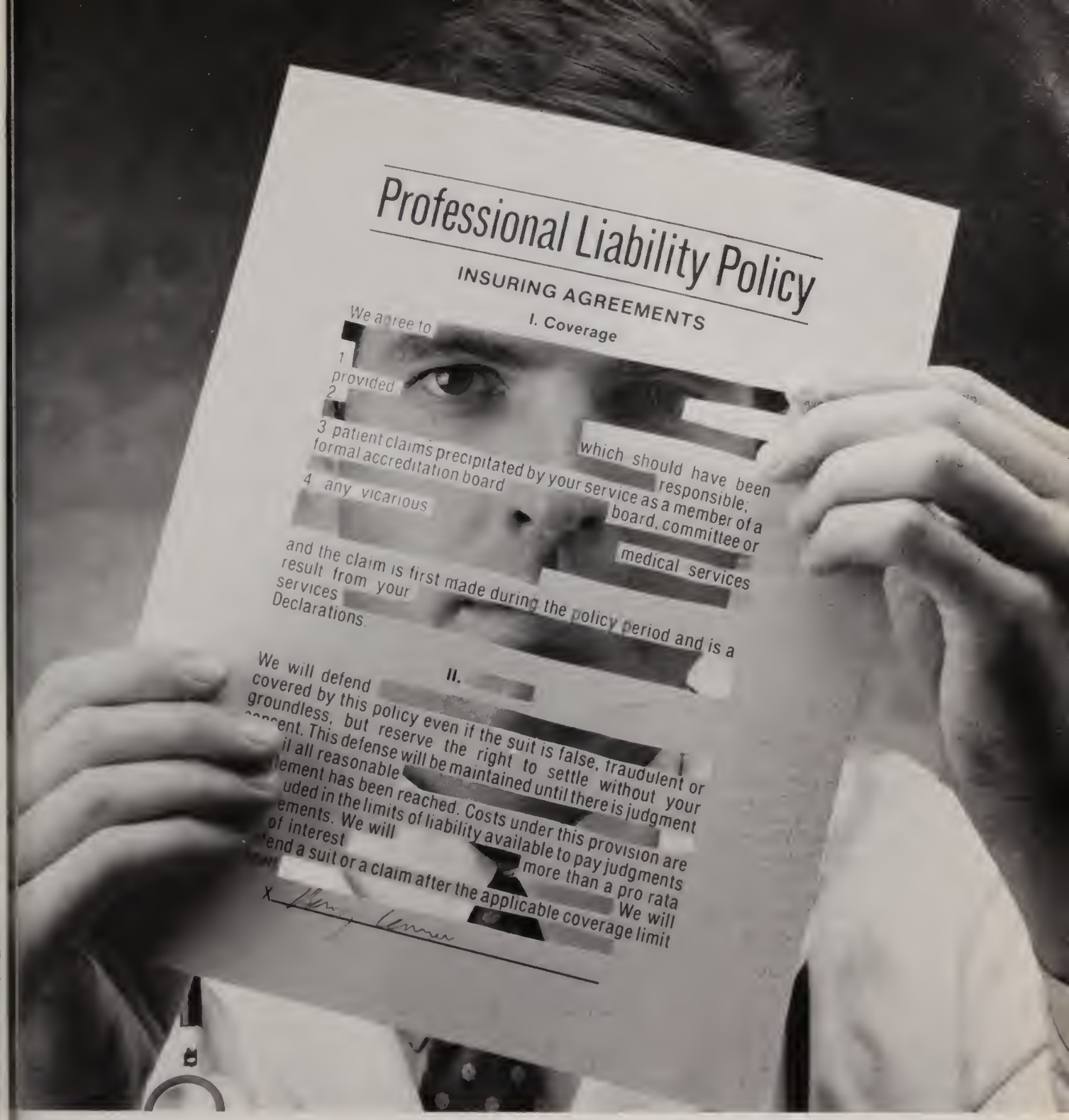

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Table 3

Staphylococcus aureus Endocarditis - Laboratory, Radiographic and Echocardiographic Findings

Case	WBC (cells/cu mm)	Chest X-Ray	Echocardiogram
1	17420	Cardiomegaly	Aortic sclerosis with calcification
2	31000	Normal	Normal
3	12630	Normal	Vegetation
4	11490	Congestive heart failure	No vegetation
5	12400	Normal	No vegetation
6	12800	Aortic valve prosthesis	No vegetation
7	10300	Congestive heart failure, aortic and mitral valve prostheses	—
8	17430	Cardiomegaly, aortic and mitral valve prostheses	No vegetation
9	28270	Normal	Vegetation
10	13000	Normal	No vegetation
11	22550	Normal Vegetation	
12	12700	Left lower lobe infiltrate	No vegetation
13	20740	Bilateral nodules	Vegetation

98.6 to 104.6°F and averaged 102.5°F.

Table 3 delineates the laboratory, radiographic and echocardiographic findings of 13 cases of *Staph. aureus* endocarditis. The leukocyte count on admission to the hospital or within 24 hours of the diagnosis of endocarditis (case 1) ranged from 10,300 to 31,000 per cu mm and averaged 17,130 per cu mm. The chest x-ray was normal in seven patients and revealed evidence of congestive heart failure or cardiomegaly in four patients and pulmonary infiltrates and nodules in two patients. Echocardiography disclosed no vegetation in seven patients, a vegetation in four patients and aortic sclerosis with calcification in a single patient.

Table 4 elucidates the treatment, outcome and complications of 13 patients with *Staph. aureus* endocarditis. All patients received an antibiotic to which the organism was sensitive and which most commonly was nafcillin, oxacillin or vancomycin. Four patients were treated with vancomycin because of drug allergy to beta-lactam antibiotics. Six patients required valve replacement for hemodynamic reasons or persistent infection. Three patients died during hospitalization for a 23% mortality rate. Complications attributable to *Staph. aureus* endocarditis occurred in nine patients and included congestive heart failure, central nervous system embolus and hemorrhage, brain abscess, renal insufficiency, septic arthritis and pulmonary embolus.

Discussion

Staph. aureus causes a variable percentage of the cases of endocarditis treated at a medical institution based on the patient population of that institution. At a tertiary care referral center such as the Mayo Clinic *Staph. aureus* accounted for 15% of cases[4] while at hospitals servicing a large addict population it was responsible for a greater percentage. In the community hospitals of Huntsville *Staph. aureus* was the third leading cause of endocarditis and resulted in 20% of cases.

Clinically *Staph. aureus* endocarditis presents as one of three syndromes: native valve endocarditis, prosthetic valve endocarditis and endocarditis in drug addicts. *Staph. aureus* native valve endocarditis typically occurs in older patients with a male predomi-

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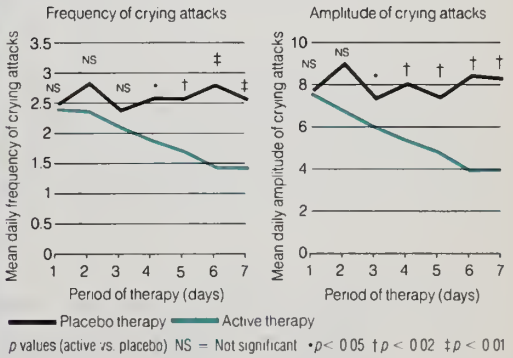

p values (active vs. placebo) NS = Not significant •$p < 0.05$ †$p < 0.02$ ‡$p < 0.01$

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1. Kanwaljit SS, Jasbir KS. Simethicone in the management of infant colic. *Practitioner* 1988;232:508

nance. Associated medical conditions such as diabetes mellitus are common as is underlying valvular disease including rheumatic and atherosclerotic heart disease. The left side of the heart is involved in up to 80% of cases with the mitral valve infected almost twice as frequently as the aortic valve.[2-5] *Staph. aureus* native valve endocarditis is an acute disease manifested by fever, chills, heart murmur, arthralgias, myalgias and in up to 25% of cases neurologic symptoms. Less commonly it occurs as a nosocomial infection.[4] In our series the patients were older and exclusively male. Predisposing factors (diabetes mellitus, infected IV cannula site and skin abscesses) were encountered in 50% of cases but no underlying valvular disease was detected and the mitral and aortic valves were infected in almost equal proportions. Native valve endocarditis in our patients also was an acute disease with fever, chills, heart murmur and arthralgia common clinical features.

Early-onset prosthetic valve endocarditis (occurring within the first two months postoperatively) due to *Staph. aureus* presents with fever, new regurgitant heart murmur, shock, splenomegaly and new cardiac conduction abnormalities. Late-onset endocarditis shares many of the same features as early-onset infection but peripheral manifestations including Roth spots, Osler nodes, Janeway lesions and large systemic emboli are more common and shock is absent with the former.[6] Our three patients with *Staph. aureus* prosthetic valve endocarditis were acutely ill with fever, chills and dyspnea and a heart murmur was auscultated in all.

Staph. aureus accounts for 70 to 95% of cases of endocarditis in drug addicts and exhibits a striking predilection for involving the tricuspid valve.

The patients frequently are young males who exhibit fever and pulmonary symptoms (due to embolization) such as pleuritic chest pain, cough and hemoptysis. A heart murmur is absent in over 50% of cases.[3] In our series, both cases of endocarditis in drug addicts involved the tricuspid valve and occurred in young males who acutely manifested fever, arthralgia and cough but no heart murmur was appreciated.

Laboratory data of patients with *Staph. aureus* endocarditis reveals a frequent anemia and leukocytosis. Chest roentgenogram abnormalities are most frequent in drug addicts and consist of infiltrates, cavitary nodules and pleural effusions. Vegetations as demonstrated by echocardiography are detected in approximately 25% of the cases and also are more common in drug addicts.[5] In our experience leukocytosis of equal magnitude was present in drug addicts and nonaddicts and chest x-ray revealed pulmonary infiltrates and nodules in the former and congestive heart failure and cardiomegaly in the latter. Echocardiography visualized vegetations in 33% of patients on whom the exam was performed and more frequently in drug addicts than nonaddicts.

Distinguishing *Staph. aureus* endocarditis from bacteremia is essential because of different therapeutic and prognostic implications. Early studies reported that 50 to 60% of such bacteremias were associated with endocarditis whereas more recent series have reduced those figures to 15 to 25%. Clinical criteria which favor the diagnosis of endocarditis is staphylococcemic patients are: absence of a primary site of infection, community acquisition of infection and metastatic infectious sequelae. Detection of valvular vegetations by echocardiography also is an important predictor of endocarditis.[7] The results from our study generally confirm the above mentioned clinical and echocardiographic findings, however, exceptions were noted. A primary site of infection was present in two of our patients, one case was nosocomial in origin and echocardiographic documented valvular vegetations frequently were absent.

The treatment of *Staph. aureus* endocarditis

requires prolonged intravenous administration of high dose bactericidal antimicrobial agents. For endocarditis on native valves nafcillin or oxacillin, 12 g/d, is recommended. Methicillin is seldom used because of interstitial nephritis associated with its administration. Those few cases due to penicillin-susceptible staphylococci can receive aqueous penicillin G, 20 million U/d. Vancomycin, 2 g/d, is utilized in patients with immediate-type hypersensitivity to penicillin while cephalothin, 12 g/d, or cefazolin, 6 g/d, can be given to patients with other manifestations of penicillin allergy. Methicillinresistant staphylococci necessitate the administration of vancomycin in the dosage listed above. All antibiotics should be continued for four to six weeks.[8]

In vitro studies have documented synergistic killing of staphylococci by the addition of gentamicin to nafcillin and in the experimental model of endocarditis sterilization of cardiac vegetations was accelerated by the same combination of antimicrobial agents. A multicenter collaborative study of *Staph. aureus* endocarditis, however, failed to demonstrate an improvement in morbidity or mortality when gentamicin was administered concomitantly for the first two weeks of a six-week course of nafcillin. Although combined therapy effected a more rapid clinical response and a reduced duration of bacteremia, the incidence of azotemia was increased. Therefore, it may be reasonable to give gentamicin [1 mg/kg (not to exceed 80 mg) every 8 h] simultaneously with nafcillin or oxacillin but restrict the use of the former to the initial three to five days of therapy.[8,9]

Combination antibiotic treatment is advocated for *Staph. aureus* prosthetic valve endocarditis. Nafcillin

Table 4

Staphylococcus aureus Endocarditis-Treatment and Outcome

Case	Treatment		Outcome	Complication
	Medical	Surgical		
1	Nafcillin	—	Survive	—
2	Nafcillin—Cefazolin	—	Survive	—
3	Nafcillin—Vancomycin	MVR	Die	CHF
4	Oxacillin	MVR	Die	CHF, CNS embolus
5	Nafcillin	—	Survive	Brain abscess, aortic insufficiency
6	Oxacillin	AVR	Survive	—
7	Nafcillin	MVR and AVR	Die	CNS hemorrhage
8	Vancomycin	MVR and AVR	Survive	Renal insufficiency
9	Cefazolin—Vancomycin	—	Survive	Septic arthritis, renal insufficiency
10	Nafcillin—Vancomycin	—	Survive	—
			Survive	Septic arthritis
12	Nafcillin	—	Survive	Septic arthritis, pulmonary embolus
13	Penicillin and rifampin	TVR	Survive	Pulmonary embolus

Note: MVR=mitral valve replacement, CHF=congestive heart failure, CNS=central nervous system, AVR=aortic valve replacement, TVR=tricuspic valve resection

or oxacillin adminstered for at least six weeks is utilized with gentamicin for the first two weeks of therapy. The use of rifampin is problematic because of conflicting experimental studies; its dose is 300 mg PO every 8 h for a minimum of six weeks. Vancomycin is substituted for nafcillin or oxacillin in the treatment of methicillin-resistant strains.[8]

Relapses of *Staph. aureus* endocarditis usually occur within four weeks of completion of therapy. Re-treatment is recommended for native valve infections whereas valve replacement should be considered for prosthetic valve involvement. Other indications for surgery include acute-onset or severe cardiac failure, recurrent emboli, uncontrolled septicemia, perivalvular abscess and purulent pericarditis.[4-8] In our series slightly less than 50% of patients required valve replacement because of hemodynamic indications or persistent infection.

The mortality rate for *Staph. aureus* endocarditis has improved from 67% in a study published in 1973[2] to 10% reported in 1982.[5] The survival for cases involving native valves and drug addicts also is more favorable than for prosthetic valves and nonaddicts, respectively.[4-5] Morbidity primarily in the form of congestive heart failure, renal insufficiency and metastatic infection is common.[5] The mortality rate for our patients was 23% and the complications described above occurred in 70% of our cases.

Acknowledgement

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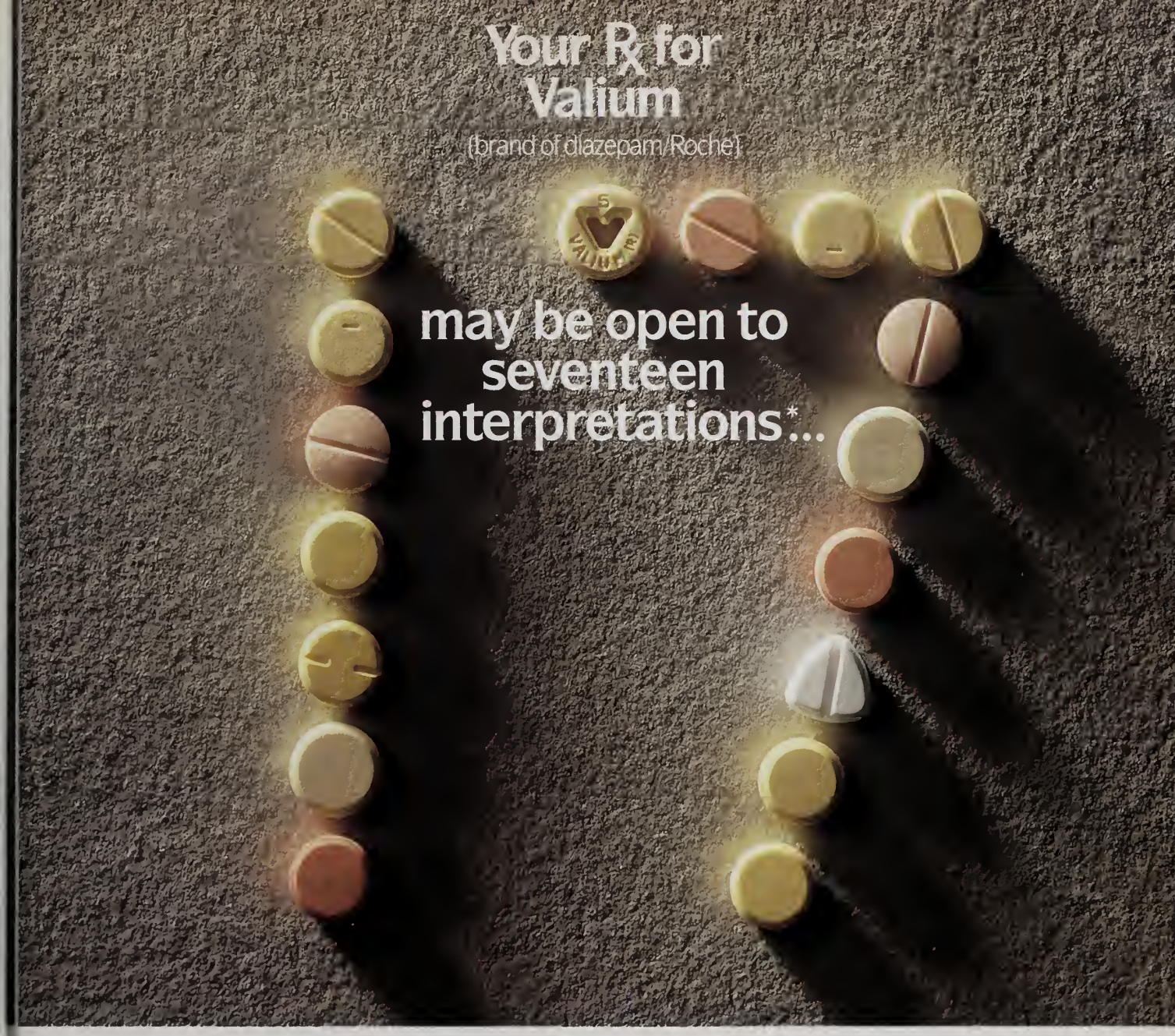

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Highlights of the Eighth Annual Rheumatology on the Beach

*David A. McLain, M.D., F.A.C.P., F.A.C.R.**

The Eighth Annual Rheumatology on the Beach Seminar held at Destin, Florida on Florida's Gulf Coast was again the site of presentations and discussions reflecting the cutting edge of rheumatology. Again the faculty represented diverse backgrounds—all parts of the U.S. (and one Canadian), the specialties of endocrinology and dermatology in addition to rheumatology, and diverse research interests within the field of rheumatology. The meeting was endorsed by the American College of Rheumatology and sponsored by the Alabama Chapter of the Arthritis Foundation and AMI-Brookwood Medical Center. The first day of the meeting was devoted to therapeutics.

Complications of NSAID Therapy

Dr. William O'Brien, Professor of Medicine at the University of Virginia, Charlottesville, and former FDA Arthritis Advisory Committee member, discussed complications of the use of non-steroidal anti-inflammatory drugs. The anti-inflammatory effect of NSAIDs occurs at a higher dose that the analgesic effect and was not appreciated with salicylates until 1954. Since that time their use has become widespread. Dr. O'Brien noted that approximately 2% of the U.S. population is receiving these drugs at any time so that considering their wide use, they are extremely safe drugs. The most common side effects include gastrointestinal bleeding which occurs in 40,000 patients per year and causes 2,000 deaths and renal failure which occurs in 8,000 patients per year and causes 40 deaths. These complications are due to the inhibition of prostaglandins and are not indiosyncracies and are predictable. Mucosa damage and gastric and duodenal ulceration can produce massive bleeding, and cause 99% of the deaths due to NSAIDs. Risk factors for these gi complications include stress, alcohol, cigarettes, severe disease, age, and type O blood. Prostaglandins stimulate gastric mucous production, and NSAIDs obliterate the cytoprotective effect of the mucous. The synthetic prostaglandin, misoprostol (Cytotec) is useful in high risk cases, but may not be cost effective for routine prophylaxis.

Prostaglandins cause renal vasodilation, and renal failure due to NSAIDs is readily reversible. In patients receiving potassium retaining diuretics and potassium supplements, sudden hyperkalemia may be fatal.

True idiosyncracies are extremely rare and unpredictable: these include erythema multiforme and photosensitization, anaphylaxis, aplastic anemia, and hepatitis.

Most adverse reactions occur in elderly patients, the non-steroidals with the shortest half-lives (e.g., diclofenac, ketoprofen, tolmetin) are the best choice in aged patients. Drugs with long half-lives are inherently dangerous in the elderly, Dr. O'Brien emphasized.

Steroid-induced Osteoporosis

Osteoporosis developing in patients receiving corticosteroids is a major concern to rheumatologists and many other specialists who regularly use these drugs. This topic was covered in depth by T. Kenney Gray, M.D., Professor of Medicine and Pharmacology and Chief of the Division of Endocrinology at the University of North Carolina, Chapel Hill, and Former Editor of the *Journal of Endocrinology and Metabolism*. Dr. Gray noted that bone loss from corticosteroids occurs very early. At 6 months there is 30% loss and at 15 months, 50% loss. Studies have revealed that there is no difference in bone loss between daily and alternate day steroids. Any patient on steroids is at risk and the mode of delivery doesn't matter if the dose is high enough. Higher cumulative doses are associated with higher fracture rates. Twenty-two per cent of patients with fractures on steroids received a cumulative dose of less than 10 grams, 33% received a dose of 10-30 grams, and 53% received a cumulative dose greater than 30 grams.

*Chief of Rheumatology, AMI -Brookwood Medical Center,Birmingham, Alabama.

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The mechanisms by which corticosteroids cause osteoporosis include reduction in intestinal calcium absorption, suppression of bone matrix formation, increase in urinary calcium excretion, and interference with vitamin D metabolism. Dr. Gray noted that steroids act directly on bone with a decrease in conversion of precursors to osteoblasts and a decrease in the number of osteoblasts. Dr. Gray reviewed the therapeutic options. While calcium supplements enhance calcium balance, alone they do nothing. Estrogen replacement therapy (a minimum dose of premarin 0.625mg/day needed) reduces fracture incidence and the rate of bone mineral density (BMD) loss. They may also reduce the risk of cardiovascular disease and have other beneficial extraskeletal effects such as relieving vasomotor symptoms.

The negative side of estrogen use is the continuation of menses and the need for progesterone in women with a uterus and the controversies related to breast cancer and gallstones. Vitamin D has been advocated and Dr. Gray noted that vitamin D does increase intestinal absorption of calcium and improve calcium balance and may decrease the rate of BMD loss. Studies on $^{1,25}(OH)^2$ D3 have shown an increase in calcium absorption but no change in BMD. Japanese investigators have reported good results with l-alpha (OH) D3 but this in not available in the U.S. Calcitonin decreases the rate of BMD loss via inhibition of osteclastic resorrption and would appear to be beneficial in steroid-induced osteoporosis. The negative side is the lack of evidence yet that calcitonin reduces fracture risk, the need for parenteral administration, and the gastrointestinal side effects.

Dr. Gray noted that nasal and bronchial sprays were under development. He noted that calcitonin had been shown to prevent BMD loss in surgically oophorectomized women. Nasal calcitonin given at a rate of 50 units three times per week had prevented BMD loss. With an absorption rate of only 5% nasally, this meant that 2.5-5 units three times per week were effective. In studies reviewed, Dr. Gray pointed out that calcitonin stimulates bone formation and the concomitant administration of calcitonin and prednisone produced no change in bone density, indicating a protective effect of calcitonin. His current recommendation is the administration of 20 units of calcitonin SQ three times per week to prevent steroid-induced osteoporosis if the patient is receiving greater that 10 mg of prednisone per day.

Dr. Gray also discussed weight-bearing exercise as

a way to prevent osteoporosis, as it had been shown to decrease the rate of bone loss in elderly and postmenopausal females. Sodium Fluoride was no longer being recommended as studies presented in 1989 had shown no change in the fracture rate of patients taking sodium fluoride to treat osteoporosis and a three times increase in stress fractures in patients receiving it. Some of these patients have had a "Lower extremity syndrome" which represents stress fractures in the long bones of the lower extremities.

Dr. Gray concluded his discussion with review of the use of diphosphonates. A recent report from Denmark had shown a decrease in the rate of vertebral fractures and the rate of loss of BMD in osteoporotic women given etidronate (Didronel tm) at a dose of 400 mg. per day for 14 days every 90 days. This therapy has not been evaluated in patients receiving corticosteroids, has gastrointestinal side effects, and should be administered on an empty stomach due to poor absorption particularly if given with calcium. Future therapy may include the use of androgens in elderly men over 70, as androgens stimulate bone formation, recombinant growth hormone, recombinant insulin growth factor, and h-PTH which has been shown to stimulate osteoblasts in low doses.

Reevaluating the Therapeutic Pyramid in Rheumatoid Arthritis

Discussion shifted to Rheumatoid Arthritis which is not a benign disease, noted Dr. Kenneth Wilske, M.D., Clinical Professor of Medicine at the University of Washington and member of the Section of Rheumatology of the Virginia Mason Clinic, Seattle. Dr. Wilske cited studies by Dr. Fred McDuffie on the costs of Rheumatoid Arthritis in terms of disability and lost earnings and the studies of Dr. Ted Pincus on mortality in RA. Dr. Pincus has shown that stage 4 RA has mortality comparable to Stage 4 Hodgkin's Disease and three vessel coronary artery disease. Dr. Wilske noted that erosions occur early (within 2 years of the onset of joint symptoms in 90% of patients), that few patients are able to stay on second-line drugs long term, and most drugs have poor efficacy or the RA escapes from control.

Studies reveal that 39% of patients have side effects with second line drugs, 25% have no effect from them, and only 23% have success. He notes that after 3 years only 10-20% are still receiving second-line drugs in some series. Studies on second-line or disease modifying drugs (DMARDs) such as gold, d-penicillamine, azathioprine, azulfidine, hydroxychloroquine, and methotrexate are usually short term studies. Most of these drugs show a beneficial effect in the short-term studies but no benefit or a diminishing benefit in long-term studies. Studies on the progress of the treatment of RA have shown a 16% reduction in the development of disability and 14% of this 16% improvement was due to total joint replacements. Dr. Wilske noted that no major breakthrough was on the horizon and that a new approach was warranted in the treatment of RA. He distinguished erosive RA from benign synovitis and noted that immunogenetic separation of these two entities may be possible with studies showing DR4-associated DRbeta genes, called Dw4 and Dw14, seemed to separate out those at risk for erosive disease.

Effective control of inflammation seems to be the key factor in halting the progression of RA with studies showing that in inactive disease no x-ray changes occurred, in intermittent disease approximately 50% had x-ray changes, and in persistent disease a high percentage had x-ray changes. Studies also have revealed that treatment which controls C-Reactive protein and ESR reduces radiological progression. In this regard, anti-inflammatory drugs may be as effective as DMARDs. Dr. Wilske summarized these considerations in re—evaluating the traditional pyramid approach: a) there is no silver bullet, b) inflammation is complex and several drugs are needed for control, c) early control is needed before damage has occurred and there is a need to "debulk" inflammation, and d) one needs to bridge to a simpler program for long term compliance. Dr. Wilske's provocative idea then is to turn the traditional rheumatoid arthritis treatment pyramid "upside down."

In collaboration with Dr. Louis Healey at the University of Washington and Virginia Mason Clinic in Seattle, Dr. Wilske proposes a Step-Down Bridge. He recommends use initially of prednisone 10 mg per day for the first month. In his experience, 100% of benign polysynovitis is controlled with this regimen. Those not controlled after one month would then be considered for combination therapy simultaneously with methotrexate, intramuscular gold, po gold, and antimalarials. As methotrexate begins to work (4-8 weeks), prednisone would be tapered.

As IM gold comes on line (4 months), methotrexate is stopped. As po gold (auranofin) comes on line (6 months), IM gold is stopped. And finally as antimalarials begin to work, po gold is stopped. This regimen controls inflammation early and yet allows a simple regimen to be used long term. Dr. Wilske noted that this hypothes~s needs to be tested and

made these final conclusions: 1. Sequential drug use in the traditional pyramid step-wise approach was unacceptably ineffective, 2. The designation of two-classes of drugs, anti-inflammatory and DMARD is not borne out on critical review, 3. Combination therapy should be considered early, 4. Control and debulk inflammation early ("therapeutic window"), 5. Bridge subsequently to a simpler program, 6. Conceptually start with the most toxic and effective drugs early for short term use, give less toxic drugs long term 7. This hypothesis needs multicenter therapeutic trials, and 8. We need improved inflammatory indices to follow to measure our progress in controlling inflammation. This was a provocative and controversial talk critically examining conventional wisdom in the management of rheumatoid arthritis. Further study of this approach is obviously needed before it is widely used.

Methotrexate Use in RA: Issues and Controversies

The use of Methotrexate in the treatment of rheumatoid arthritis has increased dramatically with the recent demonstration of efficacy and FDA approval and the favorable side effect profile. Dr. Joel Kremer, M.D., Professor of Medicine in the Division of Rheumatology at Albany Medical College in Albany, NY presented a discussion on current issues and controversies in the use of methotrexate in rheumatoid arthritis. Methotrexate is being used in rheumatoid arthritis in a dose of 5 to 20 mg per week. Dr. Kremer noted that in most studies the dosage tended to increase over time to an average dose of 12.5 to 17 mg per week.

There also seemed to be a "plateau effect" with the patient reaching a certain degree of improvement and then not improving further even with higher doses. Overall, at 5 years about 50% of patients are still receiving methotrexate, which is a better percentage than with other DMARDs. Those taken off of methotrexate were withdrawn for toxicity and not lack of effectiveness. After withdrawal from methotrexate, the patient's rheumatoid arthritis flared within 1 month, indicating the need to continue the drug unless toxicity warrants withdrawal. Long-term toxicity is found in 60-85% in series with careful follow-up but the vast majority of these patients are able to keep taking the drug.

Dr. Kremer noted that in any particular patient there was a remarkable consistency in the type of tox-

icity. If a patient tended to have mucocitis, for example, that was the type of toxicity they continued to have off and on as the dose varied. Recent studies by Dr. Graciela Alarcon have shown that folic acid 1 mg per day may decrease toxicity without decreasing efficacy.

Hepatic toxicity is one of the major toxicities that has been reported with methotrexate. It is increased in patients with excessive alcohol intake, obesity, diabetes, and impaired renal function. Since the major route of excretion is through the kidney, attention needs to he paid to the patient's renal function and to the avoidance of medications that can interfere with tubular secretion. While methotrexate can cause hepatic cirrhosis, the major change demonstrated on liver biopsy is benign hepatic fibrosis which does not interrupt the hepatic architecture and does not progress. Monitoring liver function tests appears to predict hepatic damage.

Dr. Kremer recommends baseline liver biopsies in patients who have a history of regular alcohol ingestion (although on methotrexate they should abstain from alcohol) or those with a history of hepatitis. In other patients it appears at the present time that the morbidity and mortality associated with liver biopsy is greater than that associated with methotrexate-induced liver disease. If liver enzymes stay elevated over 6 months, Dr. Kremer recommends liver biopsy. He also noted that some authors recommend liver biopsy when the total dose of methotrexate reaches two grams.

Another concern is pulmonary toxicity which is manifest by cough, tachypnea, pulmonary infiltrates, and hypoxemia. The incidence of pulmonary toxicity was 4% in the Utah series and may be predicted by interstitial fibrosis on a pre-treatment chest x-ray.

Dr. Kremer then summarized the pros and cons of methotrexate therapy. On the pro side is the fact that methotrexate works quickly (often within 6 weeks) and frequently when other agents have failed. Methotrexate is steroid-sparing and the percentage of patients that can continue taking it long term is higher than with other second-line drugs in RA. And finally, long term toxicity although frequent can be managed and the long term liver biopsy data is encouraging.

The negative side of methotrexate therapy is the fact that side effects are almost universal (although manageable), there is a need to continue the drug to sustain the response, methotrexate lung toxicity needs to be better defined as to incidence and predictability, and finally, that there are no long-term studies in rheumatoid arthritis demonstrating safety in patients receiving methotrexate for more than 6-8 years. As with any medication there are risks and benefits and the two have to be weighed against each other. In the case of methotrexate use in RA, it appears that the benefits outweigh the risks and make methotrexate one of our best agents in combating this crippling disease.

New Approaches in the Treatment of Rheumatoid Arthritis

The final discussion relating to advances in the therapy of rheumatoid arthritis was given by Dr. William Koopman, Howard Holley Professor of Medicine and Chief of Clinical Immunology and Rheumatology at the University of Alabama, Birmingham and former-editor of *Arthritis and Rheumatism*.

Dr. Koopman briefly reviewed the evidence that several rheumatic diseases, including RA, have a strong hereditary component. Rheumatoid arthritis has been associated with DR1, DR4/DW4, DR4/DW14, and DR4/DW15. All of these molecules have the same amino acid sequence from positions 70 to 74 on the DR Beta-1 chain. Other DR types without this sequence are not associated with RA. He discussed the role of protein products encoded by the Major Histocompatiblity Complex (MHC) in activating T-lymphocytes. Activated T lymphocytes may release cytokines which under some circumstances lead to tissue injury. Evidence that MHC molecules predispose individuals to develop rheumatic diseases such as rheumatoid arthritis suggests that these molecules likely attach and present a protein fragment (?viral or bacterial) to certain T lymphocytes which are then capable of triggering the disease when activated. While the precise nature of this fragment and its origin(s) remain unknown, advances in molecular biology have permitted three dimensional visualization of the attachment site for the antigen fragment on some of these MHC disease susceptibility molecules.

Armed with this information, a rational strategy for treatment is emerging with the goal of interrupting events underlying the activation of T lymphocytes by the "disease-inducing" antigen-MHC molecule complex. Dr. Koopman noted that this strategy has proven to be extraordinarily effective in preventing and/or ameliorating established disease in several animal models of human SLE and RA. Examples of specific maneuvers intended to interrupt the activation of disease-related T lymphocytes include the use of monoclonal antibodies which are directed against the anti-

gen attachment site of the MHC molecule associated with disease susceptibility. Another promising technique involves the administration of synthetic protein fragments which occupy the attachment site of the MHC molecule but do not activate disease-associated T lymphocytes. Other potential sites of intervention in the disease process would be the use of anti-T cell receptor antibodies or anti-T cell accessory molecules, and by the interruption of cell adhesion.

Dr. Koopman then discussed ongoing trials being conducted at UAB. This approach involves the inactivation or removal of T lymphocytes capable of recognizing the disease-related protein-MHC molecule complex. In the case of RA, these T lymphocytes express a molecule designated CD4 on their surfaces. Administration of anti-CD4 antibodies blocks activation of these cells and has been shown to be an effective therapy in animal models of both SLE and RA. Trials of such antibodies in human RA are being initiated at the University of Alabama, Birmingham.

Finally, Dr. Koopman discussed cytokines (e.g., interleukin-2) and the role they have in RA. Cytokines are released by activated T lymphocytes (or cells acted upon by T cells) and almost certainly contribute to tissue injury in several forms of arthritis. Present efforts are underway to develop antibodies that can neutralize these cytokines. Antagonists to cytokine receptors are also being developed. The possibility that inhibition or neutralization of relevant cytokines may suppress or prevent tissue injury in some rheumatic diseases is indeed attractive.

Dr. Koopman concluded that the appearance of a number of new approaches to the treatment of rheumatic disease reflects substantial progress in the understanding of these diseases derived from intensive biomedical research. The development of therapeutic approaches based on clear understanding of disease mechanisms will almost certainly lead to more effective and less toxic treatments than are currently available.

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Mrs. Stuart K. Bean
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But these workers are not the only ones necessary to the success of "HealthLine." The members of the Jefferson County Medical Auxiliary know first-hand that holding down this night job requires an abundance of devotion.

As key participants in this annual JCMS project, the Jefferson County Medical Auxiliary practically runs the show. Auxiliary members have kept things rolling for nine years by putting in hundreds of hours as they aid in recruiting doctors, organizing and planning as well as serving food. About forty physicians per night work at the telephones while auxiliary members serve snacks and finger food to hungry doctors working from 6-8 p.m.

The Auxiliary does have a significant helper in the corporate sponsor, Liberty National-Torchmark Insurance Company. The sponsor provides food such as cold cuts and chicken fingers, a ten foot poor-boy sandwich, cocoa and coffee. Auxiliary members also serve up desserts they have prepared.

Donning flat shoes and supportive smiles for the

ninth year, JCMA members devote not only their talents, but also their time in serving and cleaning up after the dozens of physicians who are busy at the telephones.

Imagine housework for hours every night for a week for a family of 40 and you have and idea of auxiliary duties at "HealthLine." And because this event is televised on a local station, their work must be done in front of TV cameras.

Strong backs and a great deal of work are behind the successes of "HealthLine." One example of this strength was Diane Orso, president of the JCMA, who did not miss a night at the last "HealthLine" though her husband was in Saudi Arabia with Operation Dessert Storm. Such devotion remains as unceasing as the annual ringing of the telephones of "Project HealthLine."

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Bernard H. Eichold II, M.D., Dr.P. H.
Roy Roe Acree, Administrative Assistant

Rising health care costs are a major concern for all employers. In an effort to contain these ever increasing costs,an HMO plan was offered to the approximate 255 full-time employees at the Mobile County Health Department to determine their attitude toward a change in health insurance plans. Ninety-five percent of the employees responded to a survey and seventy-seven percent elected to continue their Blue Cross-Blue Shield (PMD) coverage in lieu of an HMO policy and an immediate five percent blanket pay raise. The basic premise behind the survey was the resultant estimated $200,000 reduction in annual premiums realized through a proposal made by the local HMO.

Over the past five years there has been a significant decrease in the percentage of employees choosing the family coverage option because of increasing costs. Utilizing the savings associated with the HMO plan, the family co-pay could be subsidized to the extent that decreased employee costs would allow more employees access to this option. This increased family participation was one compelling reason why the Mobile County Health Department began looking at alternatives in the first place.

On January 3, 1991, three meetings were conducted by two very qualified HMO representatives, in which the proposed plan was fully explained and questions were solicited from the interested employees. All questions were indeed well thought out and stated, as were the answers/responses by the two HMO representatives. The way was thus paved for the employee survey on January 4th, as it was felt that

FIGURE I

		BC/BS	HMO
Premium	Single	Not applicable	Not applicable
	Family*	$120.00	$70/mo
		$1440/yr	$840/yr
Inpatient Hospitalization		$200 Bed/Admission	$0 at HMO Hospital
Physician Services		$15 Co-pay (PMD)	$15 Co-pay for each
		Non-PMD (See Maj Med)	Primary or Referral
Out Patient Services		$25 Co-pay	$0 at HMO Hospital
Prescription Drugs (30 day supply) $10 Co-pay (Generic)		Applies to Major Medical Deductible	$15 Co-pay (Name Brand)
Major Medical Deductible Max of 3/family		$200 each person	$0

*Some subsidy is made by Employer for family coverage

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each employee could now make more educated responses.

A review of the survey clearly indicates that the employees main objection to the proposed plan was the lack of their primary care physicians availability on the HMO Primary Provider list. The uncertainty of change, the slight increased inconvenience of referrals, employees dissatisfaction with prior HMO coverage at other jobs, lack of concise information regarding emergency medical services for family members out-of-town, as well as possible hidden/unexpected personal costs, all contributed to influence this population to disregard the personal 5% pay raise and associated savings.

Let us look at some interesting figures that relate to the cost of the survey findings in term of dollars lost by the employees: (See Figure 1)

For the Mobile County Health Department employee earning about $12,000/year, the result of turning down this proposal meant the loss of a $600 (5%) raise during the current year, $3,000 over 5 years and $6,000 over a 10 year continued employment period. An employee earning $20,000/year loses $1,000 the 1st year, $5,000 over 5 years and $10,000 over 10 years. The decision was of a significantly greater magnitude for those employees earning a salary of, say, $40,000/year. An employee with family coverage could have saved not only the amount representing the difference in premiums (about $600/year), but also the amount eliminating the potential exposure to the Major Medical deduction of $200/yr (Max of 3/family) or $600/yr and any outpatient service costs required during the year. An interesting fact to interject here is that in 1989, the majority of Mobile County Health Department employees who were admitted to a hospital were admitted to the HMO hospital; a large, quality, full service institution with a longstanding good reputation in the community.

Although all savings made by changing to HMO health insurance would have been directed to the employees in the 5% pay raise and a decrease in family coverage costs, there was no significant savings to the Mobile County Health Department's budget for the next year, but it was felt the long term cost increases would be less for the HMO product when compared with the Blue Cross-Blue Shield product and also would result in significant savings over time.

In summary, we see that by adding all the definite savings together with the required major medical deductions and co-pays necessary under the current plan, the monies available to the employee for their own use or the purchase of additional benefits, would certainly have been substantial and

1. that employee health/medical care decisions seem more closely aligned with emotions than the pocketbook,

2. HMO's must sell this idea to physicians not just employers,

3. the doctor-patient relationship is still alive and well in Mobile, AL; something the profession should be proud of.

MASA

A LOOK AT YOUR ASSOCIATION

For more than 116 years, the Medical Association of the State of Alabama has served the physicians of this state in the legislative, educational and public arenas. A professional staff of 9, backed by 14 support personnel, works to enhance the image of medicine, to represent the interests of physicians in the legislature, and to assist members in a variety of meaningful and beneficial ways. Here is a partial listing of some of the programs and services of your association:

MASA Third Party Grievance Task Force – works with third parties, such as Blue Cross & Blue Shield and AQAF, to resolve problems commonly experienced by physicians. In less than a year the Task Force has achieved substantial resolution of problems, examples including the nursing home Recoupment demand and the serving physician edict.

Alabama Medicine – the monthly medical science and technology magazine of the association.

The Alabama MD – MASA's weekly newsletter, with an emphasis on medical socio-economic issues impacting medicine in Alabama and in the nation. At last count, no other state association had a weekly newsletter.

Continuing Medical Education – MASA offers a dozen workshops around the state each year, and acts as the accreditation agency for several other CME programs. AMA has repeatedly referred to MASA's program as among the nation's best.

Lobbying and Political Action – MASA represents you, and the issues you hold dear, in both the state and national legislative forums; our lobbyists monitor all legislation affecting medicine. The Association has ready access to both state legislators and our congressional delegation.

Legal Department – Reviews legislation and provides timely medical-legal information at seminars and through MASA publications. Provides guidance for physicians, office staff, the Board of Censors and the Board of Medial Examiners.

Annual Washington, D.C. Visit – MASA members meet with the Alabama Congressional delegation to discuss issues face-to-face in an atmosphere of informal give-and-take.

Practice Management Workshops – Offering the latest information on CPT coding, with drive-in seminars to tune-up your office staff.

Public Relations/Media Liaison – MASA maintains a close working relationship with the state's news media, telling medicine's story to the people of Alabama.

Image Enhancement of Physicians – MASA produces TV public service announcements, billboards, patient attitude surveys for your office, and informational posters and flyers to effect a positive public perception of physicians.

Physician Placement Register – published every other month, it can help you find a practice opportunity or sell your present practice.

MASA Report Video Newsletter – a quarterly look at Medical Association action and issues facing Alabama Physicians, produced in MASA's own TV facility and available for members and county societies.

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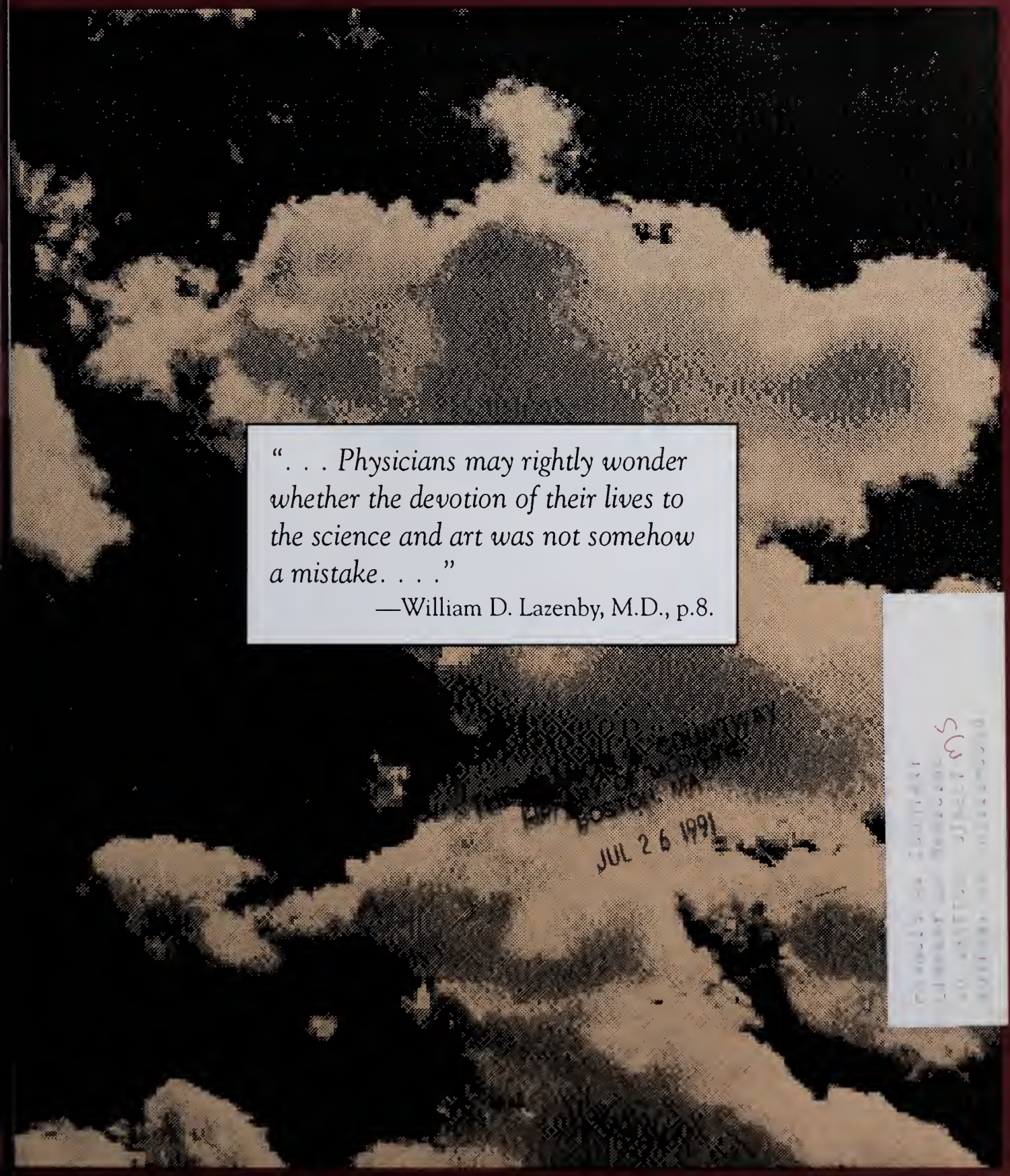

". . . Physicians may rightly wonder whether the devotion of their lives to the science and art was not somehow a mistake. . . ."

—William D. Lazenby, M.D., p.8.

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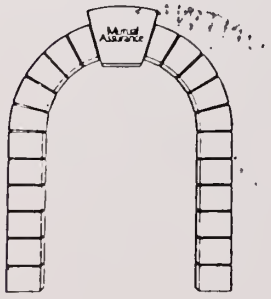

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In This Issue

Hospice—Let It Work For You

*James H. Blanton, M.D., F.A.C.P.**

Death is not an easy topic to address. Oh, we physicians can talk philosophically and abstractly about it for hours. We can objectively go over it with the out-of-town relatives of elderly patients. However, when it comes to a patient we have known and treated for years, a patient with whom we have established a close bond, or a member of our own family, it is an entirely different matter.

Thankfully, not all of us have experienced the death of a close family member, but each of us has experienced an illness in our family and the more serious the illness, the more gut-wrenching the experience. A terminal illness is even more devastating and each patient has parents, a husband or wife and children. Each of them is as devastated as you or I would be if our family member were involved.

Most physicians are not well schooled in the care of the terminal patient. No professors talked to us in medical school about the dying family. We were trained in the "curing of illness, the preservation of life and the treatment of cancer."

There was less need for Hospice years ago. Most people lived their entire life in the same neighborhood. We were less mobile. We knew everyone, walked to the corner drugstore and surrounded ourselves with our own support groups. Not so today. Many of our patients have moved every few years. All of us are living longer, even with difficult and complicated illnesses. Cancer, like other illnesses, can be a chronic process.

Early on, physicians were fashioned to be all things to all people. But, just as all of medicine has specialized, so the terminal illness and the process of dying calls for the hospice concept.

Physicians and health care must learn the share the dilemma of the dying patient. Each of us has experienced the distraught family who brings the actively dying cancer patient to the Emergency Room looking for help. The patient may or may not live long enough to get to the hospital room. Today, we have another option for this patient it's called hospice.

Families don't talk much about death with each other. Somebody might remember Grandpa saying, "I certainly don't want to be treated like that." But there were no specifics. The family will hasn't been updated since 1940 and Grandpa certainly didn't want anything to do with those new fangled living wills.

Well, look out, folks! Most of us are going to live into the twenty-first century, and hospice will play a larger and larger role in terminal care. It really should not come as a surprise to anyone. The physician is simply not equipped to deal with all the aspects of the dying family. It requires a team approach and the doctor must learn to initiate the hospice concept.

The hospice team is made up of several people. These include a dietician, a social worker, a minister, registered nurses, a medical director, a pharmacist and a volunteer director, all of whom must maintain a close working relationship with the attending physician and his/her staff.

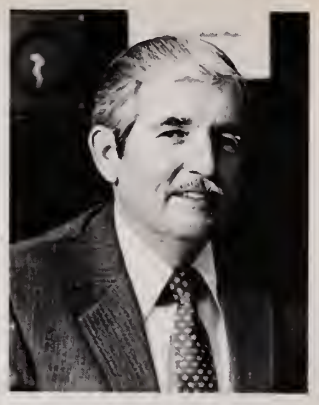
One of the difficult things for the doctor to do is confront the patient and the family with the fact that the illness is getting ahead of the treatment, i.e., the treatment is not working. Of course, there are other treatment protocols but eventually the physician, the patient and the family will need hospice. Currently the hospice team is being consulted too late to really get involved with the patient and family. I predict that ultimately the hospice team will be consulted on every cancer patient when the Karnofsky Performance Status reaches fifty percent. This will allow the physician to call for assistance objectively rather than feel that he has failed to heal the patient.

The need for hospice is great and it will continue to grow. Physicians and health care personnel need to become more informed about this group of specialists. The primary goal of hospice is pain control in the very ill patient while addressing the dynamics of the family. This is not to say that the hospice team solves every frustrating and difficult problem. By definition, it requires a multidisciplined approach.

My plea to physicians is that they think about hospice and enhance the care of the terminal illness with the hospice concept.

* Internal Medicine, Hematology, Oncology. Medical Director, AMI Hospice Brookwood Medical Center, 2600 Brookwood Medical Center Drive, Birmingham, Alabama 35209.

EXECUTIVE DIRECTOR



S. Lon Conner
Executive Director, MASA

600,000 x 1

A physician out in Wichita Falls, Texas, told *Texas Medicine* that he remembers the exact moment when the realization was driven home to him that physicians had lost respect in their own communities.

Clifford Burross, M.D., 61, heads a Family Practice residency program. He had just testified for the defense in a malpractice suit. The lawyers were discussing whether more testimony would be needed from Dr. Burross when the judge intoned from the bench, for the jury and all to hear:

"If we really need Dr. Burross, we'll know where to find him — on the golf course."

Had this been the usual boorish remark of some sozzled idiot at a cocktail party, Dr. Burross would likely have considered the source and shrugged it off. But the judge was speaking in front of a malpractice jury and his words were highly inflammatory and prejudicial in that environment. Dr. Burross, at the risk of being held in contempt, looked up at the judge and said:

"I'd like to make a correction. In my 30 years of practice, I've been on the golf course twice. The way to reach me is through my office or my beeper."

You've all encountered such slurs, although probably not by a judge before so sensitive an audience. Some years ago, a Montgomery doctor, who shall be nameless, had a comical way of entering anti-doctor discussions at parties and the like. He would join in the general denigration of the profession with gusto, his voice rising in anger the more heated the denunciations became. He would always position himself at the back of the group to remain unrecognized as long as possible. Repeating all the threadbare denunciations of his calling was his gentle revenge against a society that seemed to regard physicians as some kind of indentured servant, people who think the profession owes them instant access to a doctor, "when I want him, where I want him, at a price I want to pay." Finally, when the topic turned to physician fees, he would loudly interject his clincher: "They charge as much as *plumbers*! Who do they think they are?" The phantom doctor had struck again.

Doctor-bashing, of course, goes back centuries. *Texas Medicine*, in its cover story on "Respect, The Public Image of Physicians," notes the publication of a book in 1672, more than three centuries ago, entitled *Advice to a Young Physician Respecting the Way He is to Conduct Himself in the Practice of Medicine, in View of the Indifference of the Public to the Subject, and Considering the Complaints that are Made about Physicians.*

Quite a title, but you get the picture. It has been going on a long time. Still, there is a difference today, noticed by many physicians to have intensified in the last decade. Palma Formica, M.D., a New Jersey physician and member of the AMA's Board of Trustees, has said:

"I gave up a long time ago thinking that my MD entitles me to respect. But the ingratitude of the general public is amazing. When we do something

good, we get chastised for not doing more. People do not appreciate how many years of deferred income we undergo while we are training or how many hours we put in each week. They don't know about the amount of free care we give away.... If a doctor kills his wife or defrauds Medicare, it's a big news story. The amount of free care we give away, that's not a story."

The Texas editors believe that a great part of the current readiness to demean doctors goes back to the 60s and its personal "empowerment" movements, its rejection of authority figures, its attack on elitism and denunciations of perceived social strata in this country. The 60s made it perfectly all right to tear down all the icons of privilege and status. The period saw the widespread use of obscenity to shock and to violate the canons of decency. That ended, but many of the effects remained, even if only deposited in a naive consumerism that takes as its first commandment the assumption that no "establishment" can be trusted. If it's big, and particularly if it is successful, it's evil by definition.

The great majority of Americans were not, of course, flower children or hippies. The great majority held these dropouts from civilization in the contempt they deserved. Yet, as no less a student of human behavior than A. Hitler once said, people often come to tacitly accept concepts they initially loathed (which may help explain the still unbelievable acceptance of the Third Reich by such a cultured people).

There are other factors in the equation as well. If the 60s institutionalized disrespect and contempt as being as American as apple pie, the 60s also institutionalized charity: Medicaid and Medicare. By assuring millions that they had paid for their entitlements, the politicians and bureaucrats also transformed health care into a commodity, and thus one that carried with it some kind of implied warranty against all defects.

The 80s saw this whole concept of product liability broadened and crystallized with the coming of the rail-birds—reviewers challenging a doctor's judgment at every turn, to say nothing of PPOs and HMOs with the implied doctrine of "less is more." What had been

a confidential matter between doctor and patient became the subject of scrutiny, second-guessing and, worst of all, third parties raising doubts in the minds of patients about their physician's choice of treatment as well as his fees.

Add all this together — the historic disesteem directed at doctors, coupled with all the contemporary innovations in doctor-bashing — and its easy to understand the provenance of the judge's remark to Dr. Burross. Our society has condemned racial, ethnic and religious stereotypes as beyond the pale for decent people in polite society. But *some* stereotypes have been sanctified as okay. What would judges think if doctors began exhuming the old stereotypes about those on the bench. I can remember the day, for example, when "drunken judge" was considered almost redundant; and when "crooked judge" was likewise a study in tautology.

Propinquity Is Lost

Polls have shown that Americans, generally, admire their personal physician but are suspicious of or downright hostile to the medical profession collectively. Technology has increased the distance between doctor and patient; so have all manner of managed care plans, utilization review, etc.

How, do doctors undertake to improve their "image?" First of all, there are no silver bullets to effect that transformation overnight. The best advertising agency in the world cannot convince the public that doctors are, like the the Boy Scouts they are expected to be at all times, trustworthy, loyal, helpful, courteous, brave, clean and reverent, if the public chooses not to be believe that.

What, then, is to be done if physicians want to escape their seemingly downward trajectory as the prime sociopaths of the last decade of the 20th Century? Interestingly, the Texas Medical Association chose to try to find out by studying what it is that some popular doctors had that less esteemed physicians might be able to adopt and emulate.

Last year, Linda Mangels, Ph.D., director of the Association's Office of Risk Management, studied the office procedures and philosophies of more than 200 Texas physicians who had been in practice for more than 20 years and who had never been sued.

Her chief finding was that good communication — verbal and nonverbal (body language that shows caring and attentiveness) insures respect, which can help prevent malpractice suits and go a long way toward establishing the very kind of patient respect doctors seek and need.

"Physicians," she found, "are just not aware of the images they project in their offices to their patients. Science and art are so integrated in medicine. You can have all the technical knowledge in the world. But you cannot treat the patient as a disease entity. You have to treat patients as whole persons, with feeling.

"Of course, getting to know patients and really listening to them may seem to take a lot of time. But it's not the *amount* of time; it's the *quality* of the time. By using caring facial expressions and maintaining an active listening mode, you can convey a lot in just 10 minutes. The patient sizes up a physician's ability to care for him in the first 15 seconds to 3 minutes of an encounter."

She cited studies showing that patients who were treated well in their visit with their doctor over-estimated the length of the visit. Although the actual time might have been 10 minutes, they remembered it as being considerably longer, which should tell you something about the effects of good communication.

"Physicians might say that giving this kind of attention is not cost-effective but the price of a malpractice suit is much higher. Patients are less likely to sue if they feel the physician is caring and friendly."

The most frequently heard complaint from patients is one you already know — the time spent in the waiting room. If you are running behind, Dr. Mangels advises, have the office staff phone patients ahead of time to give them the option of rescheduling or coming in a bit later so they don't wait as long or take as much time off work.

More and more physicians are already doing this but a surprisingly large number have not adopted what appears to patients as needed courtesy, emblematic of the physician's understanding that the patient's time is as important to him/her as the physician's is.

Clean Up Your Act

Here are some of Dr. Mangel's other tips derived from her extensive studies of patient attitudes:

• Having staff members who are kind to patients. Good manners are a must. Office staff continuity provides comfort for returning patients who appreciate seeing a familiar face when they arrive for an appointment.

• Instead of hanging "Payment Due When Services Rendered" signs, consider using posters that convey caring messages.

• Tolerate grumpy patients. They are, after all, sick,

or they wouldn't be seeing you.

• Simplify your language. Explain scientific terms. Be patient with the patient's lack of medical knowledge. Use metaphors to help convey complex concepts. But never act as though you feel the patient is less intelligent than you are.

• Converse eye to eye whenever possible. Try to avoid being in positions in which you physically seem to be above the patient, which may seem intimidating.

• Listen patiently and understand that some patients might be slow to reveal what is bothering them.

• Make sure examination rooms are private.

• Explain complications that might arise in plain sympathetic language to lessen the chance of there being any surprises.

• Be available by telephone and return calls promptly. Telephone a patient the day after you have seen him or her about a serious problem.

• Avoid having elaborate show-offy office furnishings. But don't go for the latest in trailer park benches either. Strike a nice medium. Comfy but professional, clean, and respectable office furnishings will be most pleasing.

• Take care of yourself. An unhealthy, tired doctor is less likely to feel caring to others.

Obviously, this means that the best PR medicine can generate is through the sound practice of medicine on a one-to-one basis with patients. Here is certainly a case when the sum of the parts is greater than the whole. The profession can never do for itself collectively anything approaching the cumulative effect of 600,000 individually caring physicians.

PRESIDENT'S PAGE

William D. Lazenby, M.D.
President, MASA

Commitment

We live in a time when the concept of commitment has been eroded by the seductions of materialism. In recent years, America has been so devoted to consuming, to getting and spending, devouring the substance of our posterity, the old-fashioned idea of commitment to any long-term and noble purpose has gone into eclipse. We have become a throwaway society; not only in material resources but in values and in human relationships.

Small wonder that our profession and its timeless commitment to patient care have been subjected to such relentless attack by the small-minded. What had once entitled us to respect, our dedication to healing, now invites ridicule in some quarters.

Physicians may rightly wonder whether the devotion of their lives to the science and art was not somehow a mistake. Once, Americans prided themselves in helping each other as the highest expression of their humanity. The new ethos is dog-eat-dog and let the government provide the milk of human kindness. The Golden Rule appears to have been replaced by the central philosophy of the Age of Greed —"living well is the best revenge."

To maintain in splendid serenity the ancient commitment of the physician to his calling is not easy when all about us seem to be jeering us for what they perceive as the arrogance of an outmoded aristocracy. They even question our dedication to patient care. Our pride in our profession is dismissed by the careless, the ignorant, and the opportunistic as scarcely superior to trade unionism; our immemorial heritage merely camouflage.

To respond directly to such nonsense is bootless, inviting only more invective from the reckless and envious. In such times as these, when medicine is under systematic attack from all quarters, it should be comforting to physicians to return to the wellsprings of their profession for refreshment and rededication. To that end I have assembled a few quotations from the archives of medicine that will, I believe, serve to replenish and restore your faith in these days of shouting and turmoil.

What I hope this small anthology from our magnificent past will do is convince you that (perhaps as never before in the long march of medicine down the ages) the solidarity of our profession is crucial to its survival. I hope it will do much more; I hope it will reassure you that the decision you made long ago to be a doctor was the best decision, the only decision, and nothing that has happened in recent years detracts one dram from its fundamental reward, the reward of service to mankind.

Here are some selected short readings:*

"The practice of medicine is an art, not a trade, a calling not a business; a calling in which your heart will be exercised equally with your head. Often the best part of your work will have nothing to do with potions and powders, but with the exercise of an influence of the strong upon the weak; of the righteous upon the wicked, of the wise upon the foolish... Fully one third of the work you do will be entered in other books than yours...."

Osler, 1903

"Engrossed late and soon in professional cares, getting and spending, you may so lay waste your powers that you may find, too late, with hearts given

away, that there is no place in your habit-stricken souls for those gentler influences which make life worth living."

Osler, 1889

"I have weighed in a nice and scrupulous balance whether it be better to serve men or to be praised by them, and I prefer the former."

Sydenham (1624-1689)

"The choice lies open, the paths are plain before you. Always seek your own interests, make of a high and sacred calling a sordid business, regard your fellow creatures as so many tools of trade, and, if your heart's desire is for riches, they may be yours; but you have bartered away the birthright of a noble heritage, traduced the physician's well-deserved title of the friend of man, and falsified the best traditions of the ancient and honorable Guild."

Osler, 1892

"I hold every man a debtor to his profession; from which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto. This is performed in some degree by the honest and liberal practice of a profession: where men shall carry a respect not to descend into any course that is corrupt and unworthy thereof, and preserve themselves from the abuses wherewith the same profession is noted to be infected; but much is this performed if a man be able to visit and strengthen the roots and foundation of this science itself; thereby not only gracing it in reputation and dignity, but also amplifying it in profession and substance."

Francis Bacon (1561-1626)

"In all honest work there is ultimate good, but in Medicine the rewards of devotion, of forgetting self in helping the sick and sorrowful, are more immediate; the harvest is gathered on the field.

To be a good doctor, you must love medicine. You cannot love it well unless you love also those who brought it where it is today. Then you realize that in doing your best, you are but paying a debt."

Edourard Rist, 1913

"The public thinks it strange to hear physicians speak of the fascination which accompanies the study of our art. Literature, painting, and music, do not

yield an enjoyment more keen than that which is afforded by the study of medicine, and whoever does not find in it, from the commencement of his career, an almost irresistible attraction, ought to renounce the intention of following our profession."

Trousseau (1801-1867)

"I don't like work — no man ever does — but I like what is in the work, a chance to find yourself. Your own reality —for yourself, not for others — what no other man can ever know. They can only see the mere show, and never tell what it really means."

Conrad (1857-1924)

"The relationship between doctor and patient partakes of a peculiar intimacy. It presupposes on the part of the physician not only knowledge of his fellow men, but sympathy. He sits not as a judge of morals or of conduct, but rather as an impersonal repository for confessing. The patient, on his part, must feel the need of aid, and few patients come to doctors except with this incentive. This aspect of the practice of medicine has been designated as the art; yet I wonder whether it should not, most properly, be called the Essence."

Warfield T. Longcope
Johns Hopkins, 1932

"There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarelier still the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only to be marvelled in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race."

Robert Lewis Stevenson (1850-94)

"You must always be students, learning and unlearning till your life's end, and if, gentlemen, you are not prepared to follow your profession in this spirit, I implore you to leave ranks and betake yourself to some third-class trade."

Lister (1827-1912)

All of which adds up to only one thing: we do indeed have a noble heritage and profession to which we must always remain totally committed or watch it wither.

U.S. medicine is different from European, which in every country was nurtured and controlled by government from the earliest days. In this country, comparable only to Britain, medicine grew independently of government, which now seeks to gain command and control authority over us. This applies to the state level as well as to the national.

It is not enough, not nearly enough, that a physician simply pay his dues and sit back while a few of his fellows defend the castle.

Our enemies and detractors are organized and solidified; it delights them that physicians are divided as never before. Our heritage is priceless, our independence essential if U.S. medicine is to remain the envy of the world.

What, then, do we really mean by "commitment?" Nothing more nor less than the unswerving reaffirmation of our calling in times of stress, with all that this means in terms of our dedication to our patients, our loyalty to each other, and our fealty to our chosen leaders at the local, state and national levels.

*Extracted from The Quiet Art, A Doctor's Anthology, Dr. Robert Coope, E. & S. Livingstone, Ltd., Edinburgh & London, 1952; reprinted 1988 by the University of Alabama School of Medicine, Birmingham.

The High Cost of Higher Education

*AMA Investment Advisers, Inc.**

If your Little Leaguer aspires to be an Ivy Leaguer, hang on to your wallet.

By the Year 2000, less than 10 years away, tuition alone for four undergraduate years at a public university could cost almost $20,000. A modest sum when compared to the skyrocketing prices of private and Ivy League Schools.

For example, tuition and fees for instate freshman at the University of Illinois in 1989 was $2,698. Added to the cost of room and board, which was $3,538, the total annual cost was $6,236.

According to the Office of Administration at the University of Illinois, tuition is typically raised between five and eight percent each year, to keep in line with rising inflation as well as other costs.

If the base cost of $6,236 is raised six percent a year, in ten years, the cost for one year of higher education will be $11,168.

Total minimum cost for a four-year education at a public school in the twenty-first century: $44,672.

Private or Ivy League schools may cost easily five times that amount,[1] leaving the grand total somewhere in the neighborhood of $22,360. That's an expensive neighborhood.

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Using Mutual Funds To Save For College.

There are literally hundreds of investment opportunities available, some simple, other more sophisticated. Many Americans are now turning to mutual funds as an investment vehicle for a variety of reasons, including relative ease of investing and convenience.

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Systematic investing is simply investing a set amount of money on a regular basis. It is an easy investment strategy which takes advantage of compounding and dollar cost averaging.

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But you can make compounding work for you instead of against you when investing in mutual funds. The money that you invest today can compound, or grow, as long as it is reinvested. It is important to leave the money invested as long as possible, to let it compound.

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Another simple, and at the same time, sophisticated investment concept is called dollar cost averaging.

Rather than trying to time the highs and lows of the stock market, a difficult task for even the most sophisticated professional investor, dollar cost averaging turns the ups and downs of the stock market into an advantage, so the state of the market when you enter or exit doesn't matter.

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By investing on a regular basis, no matter now large or small the amount, you may purchase more shares for less than average market cost over a specific time period. Consistent, systematic investing may be the most dependable and most convenient invest-

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ment strategy you may ever use.

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The next month, taking an easy but extreme example to follow, the fund goes down to $5 per share. You invest $100 for that month and buy 20 shares.

The following month, the fund price skyrockets to $10 per share. With your monthly investment, you buy ten shares.

After a total investment of $300, you now own 40 shares. However, with an ending price of $10 per share, your shares are actually worth more than you paid for them.

The average price per share over three months ($25 divided by 3 months) was $8.33, but the average cost to you ($300 divided by 40 shares) was $7.50.

Of course, no program can guarantee a profit or protect against losses in a declining market, but dollar cost averaging has proven to be a valuable system when pursued faithfully. Together with the profit of compounding reinvested monies, systematic investing may lessen the fear of the formidable cost of higher education.

Systematic investing is an easy way for you to obtain what may be the most profitable investment you will make for yourself or for your child: a college education.

For more information on dollar cost averaging, systematic investing, or the advantages of mutual funds as a savings vehicle, please call AMA Investment Advisers today.

(l) Tuition at Harvard and Radcliffe colleges in 1989 was $13,665, according to the GIS Guide to Four-year Colleges 1990, published by Houghton Mifflin for Guidance Information Systems.

Medical Malpractice and Access to Obstetrical Care in Alabama

*Leonard J. Nelson, LL.D.**
*Janet M. Bronstein, Ph.D.***

The medical malpractice insurance crisis of the mid-1980s has abated, but nonetheless there are concerns that the threat of liability continues to have a deleterious effect on access to obstetrical services for low income women. Currently, at the national level there is discussion over whether the tort system should be replaced with a no fault compensation scheme similar to the worker's compensation system. Florida and Virginia have already enacted no fault compensation schemes for certain birthrelated neurological injuries. After reviewing the situation in Alabama with respect to claim frequency and severity, insurance costs and access to obstetrical care, we will examine proposals for a fundamental restructuring of the medical liability system.

Part I. Trends in Medical Liability in Alabama Claim Frequency and Severity

Data on the number of claims reported to Alabama malpractice insurers from 1985 through 1988 reveals that claim frequency per 100 physicians declined by 24% during this period (Table 1)[1] The aggregate number of claims decreased from 842 in 1985 to 641 in 1988. In 1985, there were 20.3 claims per 100 physicians in Alabama. This had declined to 15.4 claims per 100 physicians by 1988. In contrast, the average claim frequency level for the major insurer in Alabama rose at an overall rate of 26% from 1980 until 1986, although claim frequency was actually lower in 1986 than in 1985. The average annual increase from 1980 through 1986 was 7%.[2] Observers nationally report similar increases in claims frequency in the early 1980s[3] and decline in the latter part of the decade.[4]

During the 1985 through 1988 period average claim costs in Alabama (payments plus litigation expenses) increased from $23,921 in 1985 to $33,040 in 1988, and the total for 1988 will probably be further increased as accounting totals are updated. These figures do not include claims against self insured physicians or hospitals.

While the precise reasons for the decline in claim frequency from 1985 through 1988 are unclear, explanations fall into two basic categories. First, it is possible that potential plaintiffs in malpractice cases and their attorneys have become less willing to file claims. The willingness to file claims for malpractice is determined by the balance between the expected recovery and the costs of litigation. Research evidence suggests that experienced attorneys can make fairly accurate predictions of the strength and monetary worth of malpractice cases, so frequency may be declining because potential plaintiffs and their attorneys feel that expected recoveries have declined. Alabama's 1987 tort reform laws are only beginning to be applied to new malpractice claims and their constitutionality has not yet been upheld. However it is possible that some of the reform components, particularly the cap on allowable damages, periodic payment of future damages, and modification of the collateral source rule, have lowered the potential monetary worth of cases and thus reduced incentives to file claims.

Second, it is possible that risk management or loss prevention programs instituted by liability insurers, hospitals and other medical practice organizations have had an effect on claims frequency. These programs work to limit the types of medical practices known to be legally (if not medically) risky. Thus in recent years physicians and hospitals which do not have the technical capacity or facilities to provide cesarean sections within 30 minutes of a determination that they are necessary have been strongly encouraged to discontinue obstetrics care. Physicians have received instructions on improving medical records documentation and on conducting appropriate diagnostic testing, while hospitals have been subject to comprehensive analyses of the legal and medical risks involved in their activities. These risk management activities reduce the probability that an adverse event will occur. They also limit the amount of available evidence documenting the link between adverse events and medical negligence; limited evidence weakens plaintiffs' cases and provides another disincentive for filing claims.

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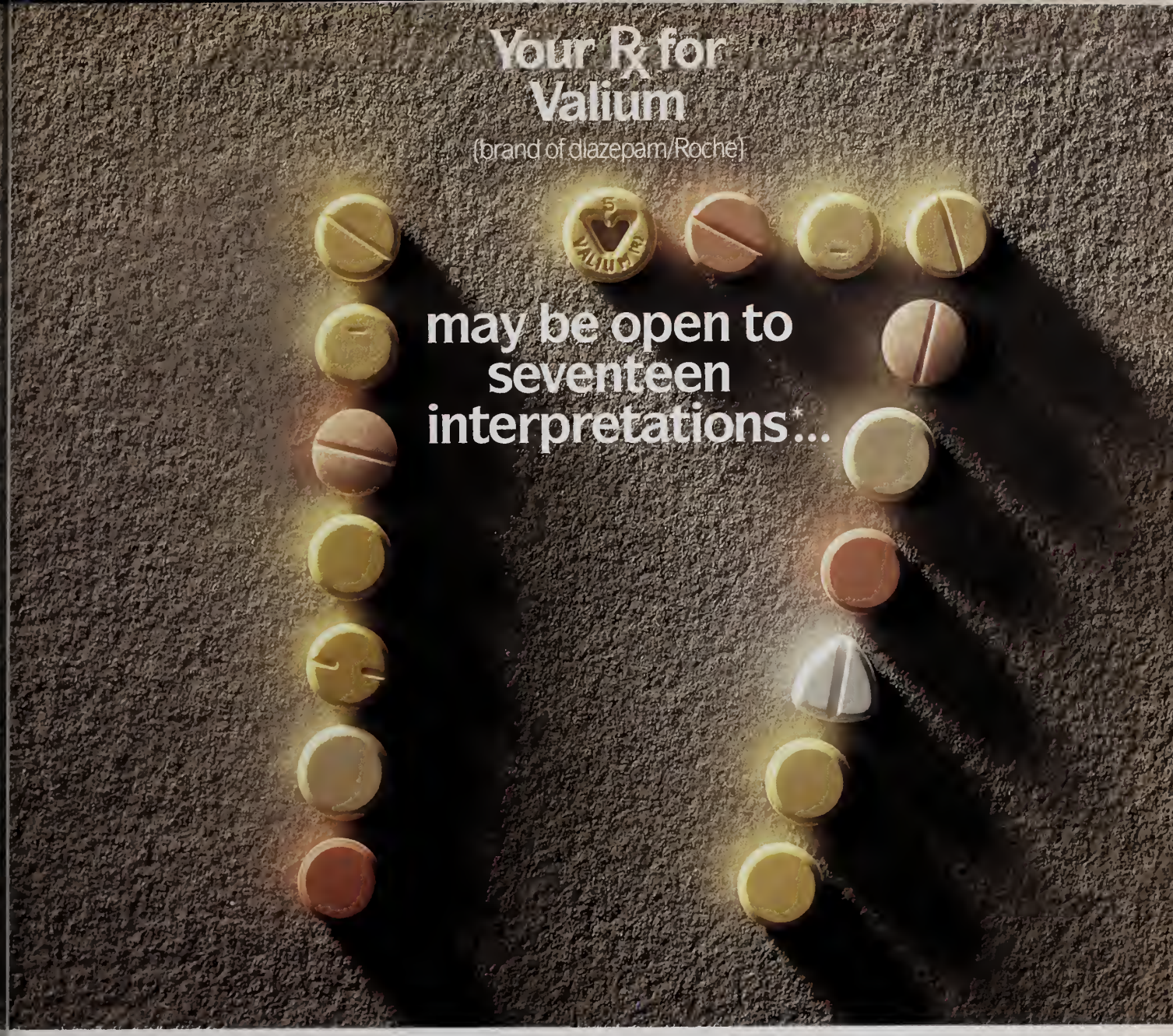

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Table 1. Medical Liability, Alabama 1985-1988

	1985	1986	1987	1988
Claims[1]	842	756	741	641
Covered Physicians	4139	4147	4143	4173
Incidence Per 100 Physicians	20.3	18.2	17.8	15.4
Percent Change		- 10%	- 2%	- 13%
Average Claims Cost	$23,921	$29,822	$37,818	$33,040
Percent Change		+ 25%	+ 27%	- 13%
Average Premium Increases (Mature, $1mil/$1mil coverage)		1986 to 1987	1987 to 1988	1988 to 1989
Average Physicians not Providing Obstetrics		+ 30%	+ 18%	+ 13%
Gynecology with OB		+ 38%	+ 34%	+ 13%
Family Practice with OB		+ 52%	+ 36%	+ 13%

[1]Claims data and covered lives reported by three Alabama medical liability carriers. Claims and premiums reported by calendar year.

Along with these risk management programs, some institutions and liability insurers have put into place active incident reporting systems which alert them to the presence of potential liability claims before such claims are actually filed. Some of these organizations have a policy of offering settlements for selected reported incidents before formal claims are filed, thus avoiding legal fees and also lowering the number of formal claims filed.

The increase in average claim cost may in part be attributable to general increases in the cost of living. Damage awards include recoveries for lost wages and medical expenses, both of which have consistently increased in recent years. The average claim costs can also be significantly affected by a small number of large recoveries. A multimillion dollar award in even one action will significantly increase average claim costs in light of the relatively small total number of claims. In addition, discovery and litigation costs are factored into total claims costs. Vigorous investigation of potential claims and any unwillingness of insurers to settle marginal lawsuits exerts upward pressure on claim costs.

Liability Insurance Premiums

Premium data supplied by Alabama's largest malpractice insurance carrier, a physician's mutual, indicates base premiums increased steadily from 1985 through 1988 (Table 1). Physicians who chose to increase their liability limits over this period experienced even greater price increases. The leveling off of the base premium price seen in later years could be due in part to increased competition. St. Paul Fire and Marine, the largest national malpractice insurer, insures approximately 600 Alabama physicians and made well-publicized premium adjustments in 1988 and 1989. In addition, a third insurer, Coastal Insurance

Exchange, entered the Alabama market in 1988. Studies of the market for medical liability insurance[5] indicate that there is considerable price competition among providers of these products. New firms can enter a market offering lower liability premium prices because they do not have large backlogs of cases for which funds must be reserved. Eventually the new firm's prices will increase as it accrues liabilities. Other firms which lowered or stabilized their prices in order to compete with the new firm raise their prices as well, as they begin to see a narrowing of the margin between their projected revenues and their liabilities.

Liability insurance carriers classify physicians into different categories, based on the liability risks involved in the scope of services they provide. These different categories of physicians pay different premium prices for liability insurance. In the mid-1980s, the price of liability insurance for physicians providing obstetrics services rose more sharply than general liability coverage. Between 1986 and 1987 family physicians doing obstetrics experienced a particularly steep premium increase of 52 percent. From the physicians' point of view, the difference in premium price between physicians of the same specialty providing and not providing obstetrics can be thought of as the obstetrics insurance differential. For gynecologists in Alabama between 1986 and 1989 the obstetrics differential increased from 49 percent to 78 percent of their price for gynecology coverage alone. For family physicians the obstetrics differential increased from 316 to 406 percent of their price for family practice coverage alone.

The leveling off of overall premium increases between 1988 and 1989 is not completely accounted for by increased price competition among insurers. Premium costs charged by all insurers reflect their existing and projected liabilities, balanced against the earnings returned from investment of reserve funds. Although it is surprising that premium costs stabilized while average claim costs were continuing to increase, the concurrent decrease in claim frequency may partially explain the decreased premium levels. Premiums may also have been stabilized, at least temporarily, by improved returns on investments.

The increases in the price of obstetrical coverage could be due in part to some unusually large verdicts arising from obstetrical malpractice during this period. Some of the increase could also be attributable to a decrease in the overall numbers of physicians delivering babies. Such decreases in the "risk pool" require price increases for those remaining in the pool in order to spread existing and projected losses.

Part II. Access to Obstetrical Care Liability and Market Pressures

Rapid increases in liability premiums are a significant stress on physician practices in general, and on obstetrics care providers in particular. The General Accounting Office reported in a 1986 study that, compared to other specialties, premiums constitute the largest portion of practice costs for ob-gyns (16% of practice costs, compared to 10% for surgeons).[6] The same study found that insurance premiums for this specialty rose faster than premiums for other specialties. Although no insurance discounts are offered to providers with very small numbers of obstetrical patients, both gynecologists and family physicians have a clear opportunity to markedly reduce their insurance costs by dropping the obstetrics portion of their practices. In addition to this direct financial incentive, physicians without the technical capacity and support to meet the risk management requirements of liability insurers (which for obstetrics are based on the American College of Obstetrics and Gynecology protocols) face additional pressures to drop obstetrics.

Clearly the pressures on physicians generated by liability issues must be viewed in the context of the market for obstetrics care in a given community. Some physicians can increase their volume of patients and/or their fees in order to meet increased practice costs with increased revenue. Others, including those in sparsely populated areas where residents tend to travel away for obstetrics care (as is the case in Alabama[7]), those in very competitive markets, and those whose patients have limited insurance coverage cannot increase revenue as easily. In this regard, a recent study of obstetrics providers in the State of Washington found that practice in an urban area, age and solo practice status were the best predicters of whether family physicians dropped or maintained their obstetrics practices. For ob-gyns, age and rate of liability claims were related to the decision to drop obstetrics liability coverage.[8] A second study of ob-gyns found that older physicians and those in solo practice were more likely to orient their specialties away from obstetrics care.[9]

Provision of Obstetrics in Alabama

The Division of Family Health Services of the Alabama State Department of Health conducted a survey of obstetrics providers in Alabama in 1989. We combined this information with a telephone update, a review of archival Health Department obstetrics provider lists, and historical membership rosters of the Medical Association of the State of Alabama to create a database of obstetrics providers who left practice, dropped obstetrics, or entered obstetrics practice outside of Huntsville, Birmingham, Montgomery and Mobile between 1985 and 1989.[10] Unfortunately the listings did not allow us to distinguish accurately between board-certified family physicians and other general physicians. Vital records and census population data for the communities in which physicians practiced were linked to this physician database. For physicians who stopped providing obstetrics care, we examined information from their practice communities in the year before they left. For entering physicians we examined information from their practice communities in the year they started obstetrics practice. For physicians who stayed in obstetrics practice between 1986 and 1989 we compared the median of their community characteristics over these four years.

We found that during this period there was a net gain in

Table 2. Access to Obstetrics Care, Alabama 1985-891

	1985	1986	1987	1988	1989
OB-GYNs in OB	110	111	118	116	118
FP/GP's in OB	60	57	51	38	39
Towns with OB	62	60	52	50	49
Counties with OB	49	48	40	38	38
Hospitals with OB	59	54	47	47	46
Percent MDS in Groups	51%	52%	60%	69%	71%
Percent MDs Take Medicaid	44%	46%	51%	60%	64%

[1]Excludes Madison, Jefferson, Montgomery and Mobile Counties.

the number of ob-gyns practicing obstetrics and a net loss of family and general physicians providing obstetrics (Table 2). The number of sites where obstetrics care was available declined markedly. Relative to 1985, by 1989 more obstetrics providers practiced in groups and more accepted Medicaid patients. It is important to note that over this same period of time the reimbursement for obstetrics care under Medicaid rose from $450 (vaginal delivery, fee including prenatal and postpartum care) to $1,000, or from 45 percent to 64 percent of the reimbursement paid by Blue Shield of Alabama in each year. In addition, in 1988 the proportion of pregnant women covered by Medicaid expanded dramatically, as income eligibility levels increased from 14 percent of the federal poverty level (the eligibility level for receiving Aid to Dependent Children in Alabama) to 100 percent of the federal poverty level. Thus Medicaid became a more significant and more satisfactory source of practice revenue over this period when Medicaid participation rates increased.

Focusing only on the net change in the number of obstetrics providers outside of the four largest cities in the state obscures the extent of turnover among these physicians. As Table 3 shows, there was a 44 percent turnover among ob-gyns and a 62 percent turnover among family and general practitioners between 1985 and 1989. Ob-gyns and family and general physicians who exited obstetrics (either relocating altogether or remaining in the community but dropping the obstetrics portion of their practices) were less likely to be in group practice and less likely to accept Medicaid patients than continuing or entering obstetrics providers. Ob-gyns remained in communities with high volumes of births but left communities where their "share" of births (the number of births in the town divided by the number of obstetrics providers practicing there) was low. Family and general physicians entered obstetrics practice in towns where the ratio of obstetrics providers to population size was relatively low.

While liability-related stresses are clearly important to obstetrics providers, these concerns did not totally halt the entry of ob-gyns or family and general physicians into obstetrics practice in Alabama. Instead it appears that there has been a narrowing in the types of obstetrics practices which can be maintained in the state and the types of communities which can support obstetrics practices. While there continue to be towns with only one obstetrics provider in practice, these towns experience a high physician turnover rate. The majority of physicians are in group practices in communities where they can maintain a relatively high volume of obstetrics patients.

Our finding that between 1985 and 1989 Alabama providers who did not accept Medicaid maternity patients were more likely to leave obstetrics contrasts with the prevailing understanding of the effect of Medicaid patients on obstetrics practices. It is often suggested that obstetrics providers with practices that include large proportions of Medicaid patients have smaller operating margins and are more likely to be affected by increases in liability premiums and other overhead costs. However while Medicaid payments are relatively low, they may well be higher than fees paid by maternity patients who are totally uninsured. It is also possible that, outside of large urban areas, it is difficult for physicians to maintain adequate volume in maternity practices without including some Medicaid patients. As Table 3 suggests, this may be the case particularly for ob-gyns starting new obstetrics practices.

There have been many suggestions over the years that physicians who accept Medicaid patients are more vulnerable to liability claims. However a recent empirical study of premium levels, malpractice claims frequency and severity over an 11-year period nationwide found that the proportion of Medicaid recipients in an area is actually associated with lower claims frequency rates.[11]

In summary, while liability insurance costs remain a factor in the economics of physician practices, and particu-

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Table 3. Comparison of Obstetrics Providers

		Remaining OB Providers	Exiting OB Providers	Entering OB Providers
	Ob-gyn	N=66	N=53	N=62
	FP/GP	N=25	N=41	N=20
Percent in Group Practices	Ob-gyn*	66.7	43.4	62.9
	FP/GP***	68.0	21.9	70.0
Percent Accept Medicaid	Ob-gyn**	43.9	30.2	61.3
	FP/GP***	96.0	46.3	85.0
Percent Only Provider in Town	Ob-gyn**	1.5	18.9	16.1
	FP/GP*	0	19.5	25.0
Mean Total Births	Ob-gyn	1286.1[a]	898.3	780.4
	FP/GP	305.4	209.5	228.3
Mean Provider/ Population Ratio	Ob-gyn	.211	.262	.205
	FP/GP	.551	.462	.302a
Mean Births/ Provider Ratio	Ob-gyn	197.8	162.g[b]	173.5
	FP/GP	80.5	78.7	104.8
Median County Population	Ob-gyn*	82750	75500	67500
	FP/GP	24250	36400	27500

*, **, *** Difference across categories are statistically significant at the $p < .05$, $p < .01$, and $p < .001$ levels respectively, chi-square test for frequencies, Kruskall-Wallis test for medians.

[a] Different from both categories at the $p < .05$ level, t-test
[b] Different from first category at the $p < .05$ level, t-test

larly the practices of rural obstetrics providers, the ability of physicians to remain in or enter practice is also related to practice organization and patient volume. Physicians with a larger volume of obstetrics patients can more readily spread the increased cost of liability insurance and other overhead factors among these patients. The centralization of rural obstetrics providers in group practices in larger towns and expansion only to towns with a significant volume of births but fewer providers is in part a reflection of the need to draw patients from a wider geographic area in order to provide a larger patient base for cost-spreading purposes. Centralization also reflects the need for obstetrics providers to practice in communities with anesthesiologists, pediatricians and well equipped hospitals.

Part III. Proposals for Liability Reform

Although liability stresses alone may not account for the majority of decisions made about providing obstetrics, there is clearly a great deal of dissatisfaction among physicians with the tort system's current handling of malpractice claims. Insurance premiums are a substantial and unpredictable component of practice overhead costs. The present system overcompensates a few victims of malpractice while it fails to compensate many others who have treatment-related injuries. Less than half of the moneys paid in malpractice insurance premiums goes to the victims of malpractice. The threat of litigation has resulted in a costly pattern of defensive medical practice where diagnostic tests are employed primarily for legal rather than medical rea-

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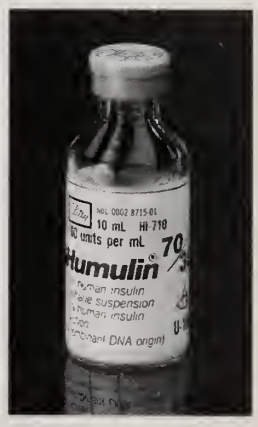

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sons. Finally, the uncertainty and delays in the present jury-based system takes an emotional toll on the lives and practices of physicians.

The tort reform efforts resulting from the mid-1980s malpractice insurance crisis do not seem to have stemmed the desire among physicians for more fundamental reforms. Many tort reform statutes across the nation have been ruled unconstitutional by state courts on the grounds that they curtail the common law rights of potential plaintiffs. Similar rulings may occur in Alabama.[12]

There is also a lingering suspicion that the reforms of the mid-1980s did not effectively deal with the underlying cause of the recurring medical malpractice crises, i.e., the expansion of liability for medical malpractice by the judiciary. These expansions have increased the grounds upon which suits can be filed, altered the standards of care against which liability is measured and eased the requirements for including evidence in suits.

Clearly, the general judicial expansion of liability during the 1960s and 1970s has undermined the certainty and predictability of tort law. The market for commercial insurance has also been affected since the expansion of liability reduced the independence of risks necessary for maintenance of malpractice risk pools. Increased premlum levels have caused low risk providers of services to resort to self insurance. This in turn has put additional upward pressure on premium levels. The problems of the malpractice insurance market are further exacerbated by the relatively small risk pools involved, and the fact that a series of claims may arise from the activities of a single physician or the adverse effects of a single procedure or treatment.

Several no-fault proposals are attracting attention as viable alternatives to settling liability disputes under tort law.[13,14] Under no-fault systems plaintiffs do not have to show that their injuries were the result of fault or negligence on the part of the care provider, but only that the injury and the medical treatment were linked. Many types of injuries would be defined in statutes as "designated compensable events (DCE'S)". Compensation for these injuries would be calculated either according to an established schedule or on the basis of actual costs incurred. No large payments for pain and suffering would be awarded. Proponents of no-fault plans usually acknowledge that they are more costly than the current tort system because they provide compensation in many more cases, but claim they are more equitable for injured patients and much less damaging to physicians than the current tort system. Some no-fault proposals reduce or eliminate the need for any medical liability insurance. Instead compensation is paid to victims through publicly collected and administered funds.

There are serious constitutional constraints against dispute resolution systems which restrict individuals' rights to sue in court without offering an equivalent benefit. Thus many no-fault proposals allow plaintiffs to select either the tort system or the alternative system to settle their disputes. However, since the levels of recovery would be limited in the no fault system, many plaintiffs with large claims having probable merit would still opt for the traditional tort system. On the other hand, those with small claims with questionable merit would undoubtedly opt for nofault compensation.

Moreover, any proposal to replace the present tort system needs to take account of its deterrent effects. The imposition of liability on hospitals and physicians for malpractice provides incentives for improvements in patient care. The judicial doctrine of informed consent has promoted new attitudes towards physicianpatient communications. The creation of hospital-based risk management programs can be traced to the expanded liability of hospitals. Finally, the corporate negligence doctrine has undoubtedly resulted in hospitals becoming more active in monitoring the practices of their staff physicians, and in screening the credentials of new applicants for staff privileges. Tort reform measures are misguided if they do not provide incentives for enhanced quality control.

In this regard, the AMA'S proposal for a fault-based administrative claims system seems preferable to current no-fault proposals. The AMA system would be administered by a new state agency or a renovated medical board. It would completely displace the current tort system. Initially, claims would be reviewed by a staff professional. If the claim was not settled, it would be heard on the merits by a hearing examiner. The hearing examiner's decision would be reviewed by a board which would include some physicians, but physicians would not be in the majority. The board's decision could be reviewed by the state's intermediate appellate court. As the board's decisions accumulate, there should be enhanced predictability and certainty as compared to the current jury system.

The AMA proposal would integrate the claims resolution function with the disciplinary function. Settlements and claims would be reported to the investigative arm of the agency. In addition, all health care organizations would be required to conduct periodic physician performance credentialing, and report to the board any conclusion that the physician's performance was substandard. The proposal contains specific liability standards, and restrictions on damages. It seems to meet most of the constitutional concerns about previous tort reform measures by offering plaintiffs a quid pro quo in the form of the provision of free legal representation in every case in which an initial determination has been made that the injury may have been caused by medical negligence.

Summary

While increases in the rate of liability claim filings and liability premium increases have slowed in the past few years, there are no indications in Alabama or at the national level that the factors which cause periodic malpractice insurance crises have been resolved. Liability issues cannot be blamed for all of the changes occurring in our health care system. However insurance premiums are clearly a financial stress on physician practices, particularly

on those with marginal revenue prospects, such as rural obstetrics practices. Perhaps worse is the psychological stress caused by practicing medicine in the context of a dispute resolution system perceived to be arbitrary and unfair. No-fault systems are an attractive alternative, since they appear to alleviate the pressure on physicians to accept blame for uncontrollable events. However most no-fault proposals fail to provide an adequate link between patient injuries and the monitoring and improvement of medical practice. The AMA faultbased proposal deserves serious consideration as an alternative to the current costly and painful system for resolving medical malpractice disputes.

References

1. Data on claims frequency were provided by the Mutual Assurance Company, St. Paul Fire and Marine, and Coastal Insurance Exchange. Premium data were provided by the Mutual Assurance Company. The authors are responsible for all calculations, comparisons and conclusions.

2. Data from an undated Mutual Assurance Inc. publication reporting claims frequency and severity for the 1980 to 1986 period.

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Current Treatment of Otitis Media in Children

*Lee H. Loftin, M.D.**

Otitis media is one of the most common pediatric infectious diseases, perhaps second only to the common cold in incidence. Teele et. al. prospectively studied 2565 children from birth and found 71% of children had at least one or more episodes and 33% had three or more episodes of otitis media by age three.[1] Howie, et. al. found that in their pediatric practice two of three children followed had at least one episode of otitis media by age two and one of seven had more than six episodes.2 Although otitis media is quite common in children there is continued controversy over its management. There is even a lack of consensus on terminology used to describe the physical findings and the various stages in the spectrum of this disease. The multiplicity of terms: including acute otitis media, chronic otitis media, otitis media with effusion, serous otitis media, purulent otitis media, and "glue ear," leads to confusion and perhaps an inconsistent approach to treatment.

Grundfast[3] at the Children's National Medical Center in Washington D.C. helps clarify otitis media by organizing it into five categories using descriptive terminology and simple definitions. They are as follows:

1. Acute otitis media with effusion (AOME) is acute infection of the middle ear space and is often associated with fever, ear pain, and upper respiratory infection. A red eardrum, usually bulging, is seen on examination and there may be drainage if the drum has ruptured.

2. Persistent acute otitis media with effusion (PAOME) is the continuation of symptoms of pain and fever despite treatment with an appropriate antimicrobial medication and allowing two to three days for improvement. On examination the patient would have the inflamed bulging eardrum seen in acute infection.

3. Recurrent acute otitis media with effusion (RAOME) is repeated acute infections with the ears returning to normal between episodes.

4. Persistent otitis media with effusion (POME) is the presence of fluid in the middle ear space for two months or more. On examination the eardrum has poor mobility on pneumatic otoscopy and has an amber dull appearance. There are, however, no signs of inflammation. Longer standing fluid becomes mucinous as the mucosa of the middle ear develops more goblet cells. With the presence of fluid there is often an associated conductive hearing loss with thresholds of 25 to 30 dB hearing level. This amount of hearing reduction is similar to that achieved by well fitting earplugs.

5. Middle ear ventilation disorder (MEVD) otherwise known as eustachian tube dysfunction is defined as insufficient aeration of the middle ear space. Examination shows retraction of the eardrum with poor mobility on pneumatic otoscopy and tympanometry confirms negative pressure on the eardrum at levels of -250 to -300 mm H_20. MEVD has a spectrum of pathology unto itself ranging from mild negative pressure on the eardrum to severe atelectasis with adhesion of the drum to the middle ear mucosa and ossicles to formation of a keratinizing squamous epithelial cyst within the middle ear known as a cholesteatoma (keratoma).

I like to add a sixth classification:

6. Chronic otitis media with perforation (COMP) refers to eardrum perforations that occur following acute infection with drainage or after spontaneous extrusion or removal of a tympanostomy tube and that show no sign of healing after several months. These holes may be considered "permanent," although they

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may heal spontaneously following a subsequent ear infection. Large perforations and those more posteriorly located can cause a significant hearing loss of up to 20 to 30 dB.

ANTIMICROBIAL AGENTS USED FOR OTITIS MEDIA

Table 1 compares oral antimicrobial agents used to treat otitis media for effectiveness against common middle ear pathogens, including *S. pneumonia, H. influenzae* and *M. catarrhalis*. Relative costs referred to below are based on average wholesale prices per Medi-Span pricing guide for total daily dosages.

Amoxicillin will be effective for most cases of otitis media but falls when a beta-lactamase producing organism is present. It has a low incidence of side effects and is relatively inexpensive. Amoxicillin-clavulanate (Augmentin) should be effective against beta-lactamase-producing strains but has a 15% incidence of gastrointestinal adverse reactions and is relatively expensive.

Cefaclor (Ceclor) is usually fairly well tolerated but hypersensitivity reactions including rash occur in approximately 1.5% and there are reported cases of a serum-sickness type reaction in 0.5% of children using the drug. Bluestone from the Pittsburg Otitis Media Research Center and Pelton recently noted marginal effectiveness of cefaclor *in vitro* for both beta-lactamase negative and positive strains of *H. influenzae*.[4] Its cost is comparable to that of Augmentin.

Cefuroxime axetil (Ceftin) provides good coverage against common middle ear microbes and is more active than cefaclor against *M. catarrhalis*. It is *The Medical Letter's* formulary choice among second-generation cephalosporins used to treat otitis, sinusitis, and respiratory infections.[5] Unfortunately it has a terribly bitter taste that has not yet been made into a palatable elixir. It can be given to older children who can swallow tablets. It's absorption is enhanced by taking it with food.[6]

Cefixime (Suprax) has the distinct advantage of once daily dosing and can be used except in incidences of *S. aureus* infections. The wholesale cost is comparable to that of Ceclor and Ceftin. None of the oral cephalosporins are active against *Pseudomonas aeruginosa. Proteus vulgaris* and methicillin-resistent *S. aureus*[6] which are often found in chronically draining ears.

Erythromycin-sulfisoxazole (Pediazole) is effective against beta-lactamase producing bacteria and has a moderate cost. It carries with it the gastrointestional side effects of erythromycin and the potential for rash and other adverse reactions of sulfa drugs. It must be given in four divided doses per day.

Trimethoprim (TMP) - sulfamethoxazole (SMZ) (Bactrim, Septra) has a sulfa component with a longer half-life allowing for twice daily dosing and has the added advantage of being inexpensive. It is not indicated for use in infections due to *Streptococcus pyogenes* (e.g. strep throat). Drug combinations containing sulfonamides have an adverse reactions profile including dermatologic, hematologic, hepatic and rarely death so patient monitoring during their use is approprlate .

Antimicrobial regimens not considered effective include: penicillin, erythromycin alone, and cephalexin (Keflex).[7] These agents lack satisfactory *H. influenzae* activity. Tetracycline is avoided not only because of its deposition in teeth, but some pneumococci are resistant to it. The broad spectrum antipseudomonal drug, ciprofloxacin (Cipro) was shown in its initial toxicology studies to cause damage to cartilage in weight-bearing joints in young beagles and to a much lesser degree, rats. Despite these interspecies differences in toxicity and their questionable correlation to humans, there is general reluctance to use Cipro in children. [8]

MANAGEMENT

Acute Otitis Media with Effusion

Amoxicillin is still the currently preferred antimicrobial for initial empiric treatment of acute middle ear infection. It is effective both in vitro and in vivo against *S. pneumoniae* and most strains of *H. influenzae,* is relatively inexpensive, and has a low incidence of serious adverse reactions.

For children allergic to penicillin, a combination of TMP-SMZ or erythromycin and sulfisoxazole is recommended as beginning treatment. If beta-lactamase producing *H. influenzae* or *M. catarrhalis* is suspected then those combinations or amoxicillin-clavulanate, or the new oral cephalosporins, cefixime (Suprax) or cefuroxime axetil (Ceftin) may be used. Patients should be significantly improved with effective medication after 48 to 72 hours.

Persistent Acute Otitis Media with Effusion

Continued or recurrent pain, fever, or both during or soon after completion of a 10 day course of therapy indicate the need for switching to a new antimicrobial agent or culturing middle ear fluid via tympanocentesis/myringotomy. Surgery, however, is not often feasible in an office setting and unless there are signs sug-

gesting a complication it is reasonable to begin a broader spectrum antimicrobial without benefit of culture.

Development of complications from acute otitis media such as meningitis, labyrinthitis or facial paralysis require specimens for culture and sensitivity and in those instances it is advisable to insert tympanostomy tubes to enhance drainage. Other indications for tympanocentesis/myringotomy include acute otitis media in an immunocompromised host or in a neonate. Neonates are subject to a different constellation of middle ear pathogens with almost 20% being infected with enteric organisms. *S. pneumoniae* and *H. influenzae* still predominate in this age group but by much lower percentages.

Recurrent Acute Otitis Media with Effusion

For children having frequent episodes of acute otitis media (such as three or more episodes within the preceding six months) the emphasis shifts to preventive therapy. Management options currently recommended include: (1) antimicrobial prophylaxis, (2) treatment of each individual episode only, (3) myringotomy and tympanostomy tube insertion, and (4) adjunctive adenoidectomy. Most parents and physicians choose a trial of a prophylactic antimicrobial and then if the child develops another infection, tympanostomy tubes may be inserted.

Antimicrobial prophylaxis

The currently favored prophylactic agent is amoxicillin 20 mk/kg, (one-half the usual daily dose) given as a single dose, usually at bedtime. Sulfisoxazole (50 mg/kg) has also been proven to be effective, safe, and is inexpensive. Patients are treated throughout the upper respiratory tract infection season (up to six months) and are examined monthly if symptom free to determine if effusions are present. Persistent fluid is discussed in a later section.

There is controversy over the use of TMP-/SMZ for prophylaxis with Leonetti and Stankiewicz in 1987 citing the *Physicians' Desk Reference* as stating this drug "should not be used for otitis media prophylaxis" although they note the drug has been used successfully for this purpose.[9] In reviewing PDRs since 1987 I find no such warning for TMP-SMZ. The concern is over the potential for bone marrow suppression with chronic use of sulfonamides (although each component inhibits a different step in folic acid metabolism necessary in the biosynthesis of nucleic acids). Parents should be informed of this problem beforehand and should halt the drug immediately and return to the office if nosebleeds, skin eruptions, or unexplained fever develop. Some physicians monitor blood cell counts during such therapy but counts can drop abruptly, even after recent normal levels.

The newer, more expensive agents are being prescribed by some physicians for prophylaxis. The broader in vitro spectrum of these drugs is an argument against, rather than for their prolonged daily use.

Myringotomy and Tympanostomy Tube Insertion

Tympanostomy tubes are effective in decreasing the frequency of recurrent episodes of otitis media but there is no consensus even among experts on how many episodes warrant tube insertion. Bluestone uses three or more episodes within six months as indication for tubes (or for prophylaxis)[4] while Grundfast prefers three or more episodes in each of two consecutive seasons.[3] A reasonable compromise is four episodes within six months or six episodes within twelve months before recommending tubes. Failure of prophylactic antimicrobials to suppress recurrent infections is also an indication for tubes.

In certain situations, it is appropriate to insert tubes before the specified number of recurrences is met. These include: (1) cleft palate or other craniofacial anomaly impairing eustachian tube function; (2) speech delay/disorder due to hearing impairment caused by the ear disease; (3) persistent middle ear fluid with superimposed recurrent infections; and (4) allergy/hypersensitivity to one or more otitis media antimicrobials.

Tympanostomy tube insertion is perhaps the most controversial issue related to otitis media management, probably due to their true and to their often overstated complications. Otorrhea is the most common problem with early drainage (within one week of the tube insertion) not to be considered unusual. It resolves in most cases with the use of topical and systemic antimicrobials.[12] Delayed otorrhea is reported to occur at least once in 10% of patients in large series but usually responds promptly to the same type of treatment. Parenteral antimicrobials selected by ear culture results may be necessary In unusual refractory cases and in rare instances, mastoidectomy is required to eradicate the infection.

Retained tubes (those that fail to spontaneously extrude after three years) or eardrum perforations that remain following tube extrusion occur 1% to 3% of the time.[10-12] These small perforations can be managed with a variety of techniques including Steri-strip®

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application over the perforation, adipose tissue plugs or gelatin sponge plugs. Baldwin and Loftin recently reported on a 94% closure rate using a Gelfilm® interlocking patch over these small perforations. If perforations persist despite these simple methods, formal tympanoplasty grafting is necessary, again with a greater than 90% success rate for the initial procedure.13

Granulation tissue can form around a tympanostomy tube on rare occasion. Most of the time the granulomas will disappear in response to steroid containing antimicrobial drops. If this fails, the granulation and tube may need to be removed.

There is no hearing loss associated with the presence of tympanostomy tubes. Indeed, by removing middle ear effusion, conductive hearing losses can be corrected. White sclerotic areas of eardrum occasionally seen at healed intubation sites or healed perforation sites are often erroneously viewed as a complication. They do not present a problem unless they inhibit eardrum vibration by extending to the annulus or by involving a majority of the drum. Small plaques provide some support and are preferable to thinned, atelectatic areas.

Most children requiring tympanostomy tubes need only one set but up to 20% will require reinsertion of tubes. Adjunctive adenoidectomy is helpful in this event as described below.

Adenoidectomy

Adenoidectomy should no longer be considered controversial since two well designed prospective studies have demonstrated its effectiveness in certain patients with otitis media. Gates 1987 report on 578 children aged 4 through 8 years with persistent otitis media with effusion concluded that the group receiving adenoidectomy with bilateral myringotomy had significantly lower overall post-treatment morbidity than those groups treated with myringotomy or tympanostomy tubes alone.[14]

Paradise and Bluestone in 1991 reported on 99 randomized and 114 non-randomized (per parental wishes) children undergoing insertion of a second set of tubes for recurrent otitis media after extrusion of tympanostomy tubes. Children having adjunctive adenoidectomy had significantly better outcomes than controls during the first two years as evidenced by over 40% less time spent with otitis media and over 30% fewer suppurative (acute) episodes.12

Persistent Otitis Media with Effusion

For persistent middle ear effusion, management goals are to eliminate the fluid and keep the middle ear aerated, return hearing to normal and prevent recurrence. Therapeutic choices include observation, standard course of an antimicrobial agent, low-dose prophylactic antimicrobial treatment, myringotomy with tympanostomy tube insertion, myringotomy alone, and adjunctive adenoidectomy.

Even without signs of infection, one-third of 4500 middle ear fluid aspirates from the Pittsburgh Otitis Media Research Center grew pathogens, most commonly *S. pneumoniae*, *H. influenzae*, and *M. catarrhalis*.[4] If the patient has not received an antimicrobial during the current episode of effusion it would be appropriate to try a full course as described for acute otitis media with effusion. Many effusions will remain for at least one month but most clear by the second or third month. It may not be necessary to treat with full dose antibiotics for the duration of the effusion in the absence of signs of infection. Low-dose antimicrobial therapy may prevent another infection from developing in the fluid while it spontaneously resolves.

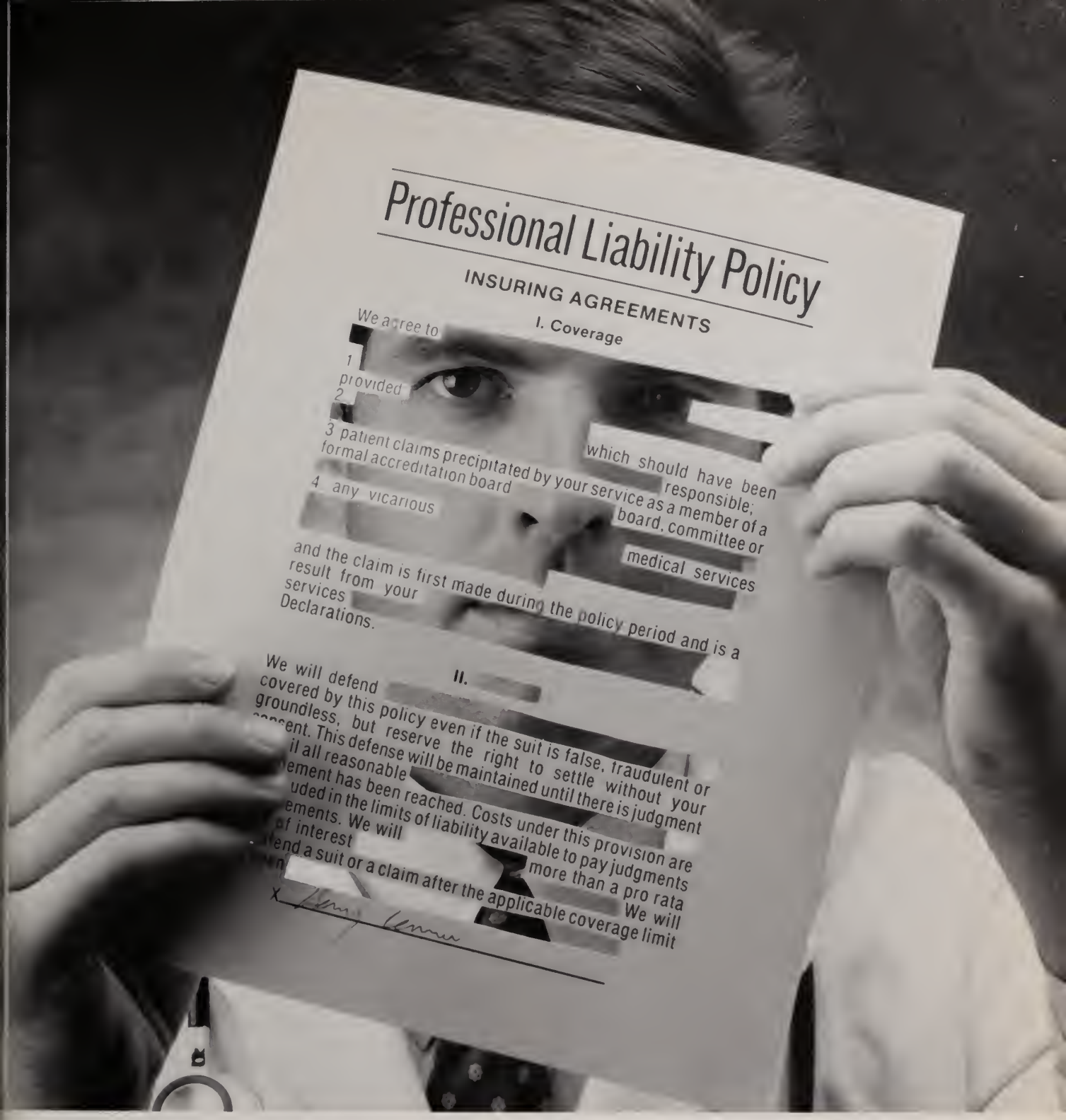
In choosing among the options, one must consider several factors: the hearing level in the affected ear(s), the child's school performance (in part, a function of hearing), hypersensitivity to antimicrobials, age of the child, and duration of the effusion. The negative effect prolonged middle ear effusion has on hearing can not be emphasized enough. In children hearing loss leads to decreased perception of language hence retarded development of speech, language, and cognitive abilities.

Middle Ear Ventilation Disorder

Management goals of MEVD depend somewhat on its severity. In general they include relief of symptoms, return to normal hearing, and prevention of structural damage to the eardrum or formation of cholesteatoma.

In mild cases that have no significant eardrum structural abnormalities, oral decongestants may relieve the pressure feeling. Autoinsufflation or "popping" the ears is of questionable benefit. If bothersome symptoms persist despite medical therapy, myringotomy with tube may be offered.

For progressive disease with structural changes such as atelectasis and associated atrophy of the eardrum, ossicular chain disruption may eventually occur as the drum drapes over the incus, becomes adherent, causes an osteitis, and eventually erodes the incus-stapes joint. Tympanostomy tubes should be inserted before such destruction occurs. If tubes fail



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to reverse these changes, tympanic membrane replacement (tympanoplasty) should be considered to prevent ossicular discontinuity or cholesteatoma formation.

Retraction pockets in the posterior superior pars tensa or in the pars flaccida represents progression of MEVD pathology and ultimately results in a cholesteatoma. This mandates surgical intervention with removal of diseased tissues, replacement (grafting) of the eardrum and replacement of missing ossicles with various prostheses.

Chronic Otitis Media with Perforation

When infection has resolved but a tympanic membrane perforation persists, no harm results in waiting until the child is older to repair the defect. The goals are to prevent further infections and maintain normal hearing in at least one ear. The patient should avoid water contamination of the ear and be placed on prophylactic antimicrobials if prone to infections during the URI months. Active infections should be treated with systemic and topical antimicrobials.

The minimum age at which tympanoplasty should be performed is not universally agreed upon. Probably, children should be at least five years of age and should have been free of ear infections during the preceeding URI season and have a normal appearing opposite ear. Bilateral perforations with associated abnormal hearing necessitates earlier repair of one of the ears or a hearing aid.

Other Considerations

When patients do not respond to standard therapies, one must consider conditions that can aggravate or mimic ear infections. Disorders of the immune system such as allergies, IgG subclass deficiencies or HIV infection may be present. Tuberculosis may affect the ear, though rarely in the absence of active pulmonary disease. Children with immotile cilia syndrome often have chronic ear disease. Finally, rare pediatric malignancies of the ear such as rhabdomyosarcoma or histiocytosis may present with chronic ear drainage.

Summary

Otitis media is a common childhood disease with a spectrum of pathology ranging from acute, painful infection to persistent middle ear effusion to chronic negative middle ear presure and development of cholesteatoma. Amoxicillin remains the initial empiric drug of choice with TMP-SMZ or erythromycin-sulfisoxazole used for penicillinallergic patients or for amoxicillin therapy failures. Amoxicillin-clavulante, cefuroxime axetil (no elixir form available) or cefixime may then be tried keeping in mind relative costs, side effects, dosing frequency and drug formulation.

Prophylactic amoxicillin or sulfisoxazole at one-half the usual daily dose given once a day throughout the URI season is effective in reducing the number of episodes of AOME. Prolonged sulfonamide use should be carefully monitored.

Tympanostomy tube insertion is indicated for frequently recurring otitis media and for persistent middle ear effusions. Adenoidectomy is an adjunctive procedure shown to be effective in children requiring a second set of tubes for recurrent infections or for children four years old or older with persistent middle ear fluid.

Tympanoplasty may be necessary to prevent ossicular chain damage due to severe cases of MEVD or to repair non-healing perforations. Cholesteatomas must be surgically removed and may require elaborate reconstructive techniques.

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The Coke Factor

J. N. Brouillette, M.D.
Reprinted from Central Florida Physician

An article appearing in *The Orlando Sentinel* on February 10, 1991 concerning the high cost of medical care stated that an appendectomy used to cost $125; the price in 1991 is $11,000. After reading the article carefully, I concluded that the author was confused about fees.

The reason medicine costs so much in 1991 is due to the price of a bottle of Coca-Cola.

When I began practicing medicine in 1967 the surgeon's fee for an appendectomy in rural Michigan was indeed $125 and an office visit was $10. After several years in practice I approached one of the older doctors about raising fees. "How much should I charge for an office visit?" I asked.

"Son," he said, "I have a foolproof formula for calculating reasonable medical fees. I charge according to the price of a bottle of Coke. When I started practicing medicine years ago, it was a nickel and I charged $5 for an office visit. Now that the price of a bottle of Coke is 15 cents I charge $15."

This meant that I should raise my fees since I was still synchronized with the 10 cent coke.

As the years passed I continued to use this formula which works quite well. In 1991 the price of Coke averages about 60 cents. After reviewing the cost of living over the years the "Coke Factor" seems to be on track.

When I began practicing in 1967 I bought a new car for $3,500; my 1991 Taurus wagon cost $20,000. My first house cost $20,000; my Maitland house $120,000. Now an office visit is $60 and the surgical fee for an appendectomy $800.

However, the Coke Factor has not held true in all aspects of medicine. In 1967 I paid $700 per year for malpractice insurance; in 1989, $36,000. If the Coke Factor were running true to form in medicine, as in other parts of the economy, I should have paid $4,200. Why the $31,800 difference?

After a second of deep meditation, I realized that I failed to add the legal factor to the equation. When calculating the cost of medicine the legal factor must be added to the price of surgery, the cost of running a hospital and of buying high-tech equipment.

In 1967 I never thought about malpractice, nor did I know a doctor who had been sued. Although I had heard about a Detroit surgeon who was sued for $10,000, I felt legally secure in the rural environment. Presently I don't know a doctor who has not been involved in litigation, and $1 million awards are common.

The bureaucratic factor is also responsible for Coke Factor failure. During the past 20 years medicine has come under the scrutiny of the U.S. government with its obscene regulations, documentation, and guidelines. These paper processes interfere with every aspect of medicine, not only financially but intellectually. Hospitals drown in the extra expense of complying with mandates and need triple the administrative employees to perform excess paperwork. Paper care is now more important than patient care.

The technology factor has also skewed the Coke formula. An example is the appendectomy referred to in the *Sentinel* article. Twenty years ago a patient with acute appendicitis had minimal laboratory evaluation before surgery and occasionally a normal appendix was removed. If in doubt, we waited a day or so before operating.

In 1991 all technology is used to avoid "failure to diagnose" or "wrongful diagnosis." Patients with appendicitis may have a CT scan, an ultrasound, a barium enema and, if doubt still exists, a laparoscopy. A patient treated expectantly for three days before an appendectomy was performed sued a surgeon for "delay of proper diagnosis" which contributed to extra pain, suffering and anxiety.

The expectation factor is also expensive. People expect to be healed every time, to have no pain or suffering. The lay press and grocery store journals keep patients informed of the latest technology and they demand it.

The price of medicine is increased because of

reluctance to use the "D" word. In 1991 patients don't die, they "Code." When a patient dies the family is notified of the event and the undertaker picks up the remains. When patients Code they are resuscitated and placed in the intensive care unit. They are given maximum technology for several days and Code again. Only unsuccessful Codes are permitted to visit the undertaker. Some Codes may cost a hundred thousand dollars.

Is there a solution to the problem? Doctors' fees are only a small part of the total health care expenditure. If doctors received no salary, it would reduce the price of a bottle of Coke only to 50 cents. To decrease the legal, bureaucratic, and technology expense would be unpopular with politicians.

The only viable solution would be to have the government subsidize the Coca-Cola industry and return the price of a bottle of Coke to 10 cents, then *The Orlando Sentinel* columnist will be able to have his appendix removed for $125.

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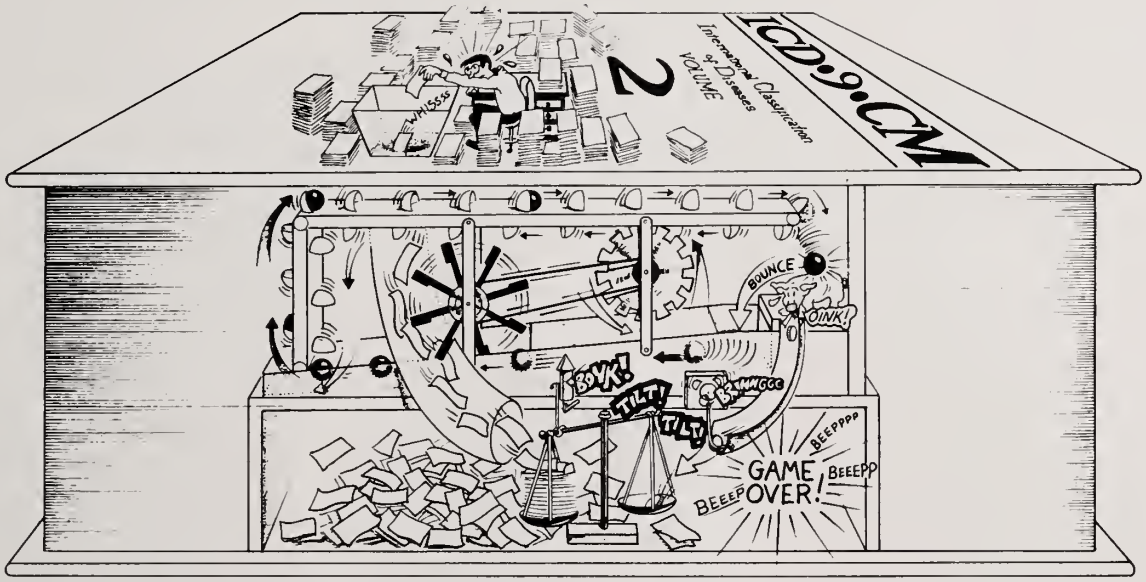

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A MASA Special Report

ALABAMA MEDICINE:SUPPLEMENT

MASA has joined AMA and other state societies in a massive national effort to block the Bush Administration's proposal to slash the Medicare conversion factor by 16%.

Not only does this proposal impact heavily on physician fees (estimated total, $8 billion), the proposed HCFA rule change is a categorical violation of the fundamental agreement from the outset of discussions on physician pay reform: that under whatever formula finally agreed upon and approved by Congress, the result would be budget neutral.

The Administration's 16% conversion factor utterly repudiates that understanding; and it flies in the face of a specific congressional directive that the payment reform measures should be budget neutral, not used as a budget-cutting device.

Organized medicine negotiated in a good-faith reliance on this and other basic promises. Because of the economic impact, but especially because of this betrayal of trust between organized medicine and government, the Board of Censors wanted its members to have a complete compendium of this betrayal — which may well become a defining moment in American health care.

AMA has done a splendid job in preparing the analysis and reports herein assembled. Beyond the fact of the 16% cut in the conversion factor, this special report of your Association offers a liberal education in the processes of government and bureaucracy.

Supplement to the June, 1991, issue of Alabama Medicine

Medical Association of The State of Alabama

James E. West, M.D.
Chairman, Board of Censors

William D. Lazenby, M.D.
President

July, 1991

Dear Doctor—

Never before in the recent history of organized medicine has a national issue impacted so disastrously on all specialties as would the proposed 16% reduction in the Medicare conversion factor.

The economic blow, heavy as it is, is less important by far than the shameful precedent this would establish for good-faith relations between the profession and Washington. Throughout the long and arduous effort to bring the Resource Based Relative Value System into being, the one, unchallenged and unarguable premise was always that whatever emerged would be budget neutral — that is, the pie would be sliced in a more equitable fashion but the size of the pie would remain the same.

Throughout the seemingly endless deliberations on the theory and execution of RBRVS, the AMA House of Delegates, physician committees, and many of the specialties were haunted by the fear that HCFA and Congress would vitiate the hard-fought victory by using the RBRVS as a budget-cutting axe rather than the sensitive laboratory balance it was designed to be.

To allay these fears, Congress enacted a fail-safe measure mandating that the RBRVS would not be so perverted. Similar assurances were freely and repeatedly offered by the Physician Payment Review Commission.

And what happened? Precisely what we were assured would not happen: the budget-neutral imperative was trashed and the RBRVS was twisted out of shape by the 16% reduction in the conversion factor. Relative value was devalued by executive fiat, if allowed to stand.

If this proposal is implemented, implemented with it will be the totally unacceptable principle that good-faith negotiations between the profession and Washington are worthless.

What can you do to prevent this calamity? Write your Congressmen and Senators expressing your indignation over this breach of trust. The enclosed packet tells how to do it and the points to make.

Sincerely,

James E. West, M.D.
Chairman, Board of Censors

William D. Lazenby, M.D.
President

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Contents

The Notice of Proposed Rule Making for the New Medicare Physician Payment System: AMA Summary and Analysis

On June 5, 1991, after a two-month delay, the Health Care Financing Administration (HCFA) published in the *Federal Register* (pp. 25791-978) the Notice of Proposed Rule Making (NPRM) on Medicare physician payment reform. The new payment system utilizes a schedule of payments based on the resource-based relative value scale (RBRVS) for physician services developed by researchers at the Harvard University School of Public Health. There is a 60-day public comment period for the proposed rule, with comments due August 5, 1991; the Final Rule scheduled for publication in late October, 1991; and Medicare carrier letters to physicians expected one month later. The transition to the new system will begin January 1, 1992.

According to the physician payment reform provisions of the Omnibus Budget Reconciliation Act of 1989 (OBRA 89), payment amounts in each locality will be determined by an RBRVS, a geographic adjustment factor, and a monetary conversion factor, which converts the relative value units (RVUs) into dollars. Although Congress had intended for payment reform to neither increase nor decrease overall Medicare payments to physicians, as a result of HCFA's interpretation of the OBRA 89 legislation, the NPRM *proposes* a severe 16% reduction in the conversion factor for the new payment schedule from an otherwise "budget neutral" level. This drastic reduction is in turn reflected in the NPRM's simulations of the impact of payment reform on specialties and states, with lower than previously projected payment increases for physicians in rural states and primary care specialties, as well as steeper payment decreases for urban areas and non-primary care specialties than earlier projections (pp. 25852-54). Based in part on an analysis by the Physician Payment Review Commission (PPRC), the American Medical Association (AMA) had anticipated this proposed reduction, communicated with the Federation, and initiated a vigorous effort to reverse it prior to publication of the Final Rule.

The NPRM builds on HCFA's Model Payment Schedule of September 4, 1990, which outlined policy options on payment reform implementation issues and provided RVU estimates for many services included in Phase I of the Harvard RBRVS study, as well as preliminary geographic practice cost indices (GPCIs). The NPRM describes HCFA's policy decisions on key issues, such as global surgical packages and payment for radiology and anesthesiology services, provides updated RVU estimates reflecting data from Phases II and III of the Harvard study, and presents refined GPCIs.

The proposed rule also represents a milestone in the payment reform implementation process because of its level of detail. Comprising nearly 200 pages of the *Federal Register*, the NPRM addresses such issues as: payment for the technical vs. the professional component of physician services; payment for nonphysicians; site-of-service differentials and elimination of the "60% rule" which limited payment for services provided in hospital outpatient departments; new codes for visits and consultations; future updates of the RBRVS and GPCIs; standardization of local carrier practices; and elimination of the policies of "comparability" and "inherent reasonableness." While HCFA's proposals on many of these issues are highly consistent with AMA policy objectives, there is one critical exception -- the proposed conversion factor reductions. The remainder of this report summarizes key issues discussed in the NPRM and presents an initial AMA perspective on them. AMA comments on the NPRM will address these and other proposed policies in a more comprehensive fashion.

American Medical Association, Division of Health Programs, Department of Health Care Financing and Organization, June 1991.

Proposed Conversion Factor Reduction

The proposed 16% reduction in the conversion factor results from a misinterpretation by HCFA of the mandate for budget neutrality contained in OBRA 89, as well as inappropriate and demeaning assumptions about physician behavior in response to payment schedule implementation. OBRA 89 requires the agency to establish a conversion factor such that aggregate Medicare expenditures for physician services in 1992 will be the same as they would have been under a continuation of the current payment system. HCFA has interpreted this provision as requiring two reductions in the conversion factor: one to offset volume increases that it projects will occur as a result of payment reductions, and one to offset spending increases projected to result from the payment system's transition formula for 1992. To determine what payments would be in the absence of the proposed 16% conversion factor reduction, payment calculations based on the NPRM should be multiplied by 1.19.

Volume Offset Assumption

A ***volume offset*** refers to a view that payment changes alter the volume of services. HCFA has proposed a 3% reduction in 1992 payments as a volume offset, based on its belief that expenditures increase by 50¢ for every $1 payment reduction because physicians increase volume to offset payment cuts. **The AMA is strongly opposed to use of any such "behavioral" offset to reduce 1992 payments.** A recent symposium on this issue, jointly sponsored by the AMA and Project Hope, demonstrated that there is no firm analytic basis for HCFA's predictions about volume responses to payment changes, and that there is considerable uncertainty regarding the existence, magnitude, and direction of any potential changes in utilization.

In the NPRM, HCFA attempts to justify its volume offset assumptions by citing the many simultaneous changes occurring under payment reform (e.g., payment increases and decreases, new visit codes, global surgical packages, and new balance billing limits) and arguing that these changes will in turn lead to utilization changes, with their net effect an increase in Medicare spending. On the contrary, however, the many simultaneous changes only add to the uncertainty surrounding volume and expenditure projections.

HCFA also attempts in the NPRM to refute arguments that Congress has already established a mechanism, the Medicare Volume Performance Standard (MVPS), precisely in order to respond to inappropriate increases in volume *if and when they occur*. According to HCFA, the MVPS is an inadequate tool for correcting such increases because of the limits on the amount by which the payment update may be reduced if the MVPS is exceeded, the two-year period between the volume increase and the reduction in the payment update, and the inability to reverse increases in the expenditure baseline. This assertion of the insufficiency of a 3% limit on the amount by which the payment update may be reduced adds further support to the view that expenditure projections are too imprecise to justify any given prospective volume offset assumption. Furthermore, the limit applies only if Congress does not act on the payment update. Congress still has the authority to supersede the limit if it deems volume increases are excessive.

Moreover, HCFA's volume offset assumption is demeaning to physicians. Regardless of its statements about responses to coding changes and limiting charges, the basis for the proposed conversion factor reduction is HCFA's belief that physicians will increase volume to offset payment

reductions. Responding to the Congressional Budget Office (CBO) position that payment *increases* will likely produce volume *decreases*, HCFA states, "We have much less experience with observing behavioral responses to increases in fees" (p. 25823). The agency has no clear evidence of a behavioral response to payment reductions, however, and the experience cited refers only to the contrast between its multi-year experience with *decreasing* payments to offset projected volume *increases* and its lack of experience with *increasing* payments to offset anticipated volume *reductions*.

Finally, in the section of the NPRM that discusses global surgical packages, HCFA's statements about volume responses completely contradict its earlier statements abou the conversion factor. Explaining its (appropriate) decision to exclude all return trips to the operating room from the global package, HCFA states:

> *We do not believe that paying for a surgeon's services during return trips to the operating room would result in abuse. **We do not believe physicians would subject their patients to risk merely to secure additional payment.** Nor do we believe that hospitals or peer review groups would permit this practice to continue if it did occur.*
> (p. 25831, emphasis added)

Since most of the services for which payments will be reduced under payment reform are surgical services, the agency is essentially advocating a paradoxical view that physicians *will* subject their patients to unnecessary risk *for the initial operation* merely to secure additional payment, but that they *will not* subject their patients to the risk of *reoperation* merely for financial gain.

Transition Formula Correction

A payment reduction to correct for the effects of the *transition formula* is being proposed due to HCFA's estimate that this formula will lead to a 2% increase in Medicare spending above the level that would occur in 1992 in the absence of a transition. Although the NPRM proposes a 2% payment reduction to "correct" for this spending increase, HCFA also acknowledges that OBRA 89 "does not specify precisely how the application of the transition rules . . . is to be reconciled with the budget neutrality requirement" (p. 25820).

The statutory language on this point states, however, that services subject to transition limits are to be paid "at an amount equal to the adjusted historical payment basis plus [or minus] 15% of the fee schedule amount *otherwise established (without regard to this paragraph)*" (42 U.S.C. 1395 w-4(a)(2)(A-B), emphasis added). This language indicates that the budget neutral conversion factor is to be calculated "without regard" to the transition paragraphs and their potential budget consequences.

Tripling Effect on Conversion Factor

The third factor contributing to the proposed severe reduction in the conversion factor is HCFA's interpretation of the statute as requiring that the behavioral offset reduction and the transition correction be loaded entirely onto the *conversion factor*. Because, under the 1992 transition provision, Medicare payments for most services in 1992 will be a *blend* of the new payment schedule and adjusted current payments, HCFA has estimated that it is necessary to reduce the conversion factor by about 3% to obtain each 1% reduction in payments. This tripling effect means that a ***16% reduction in the conversion factor is required to produce the 5% reduction in Medicare payments (a***

3% volume offset plus a 2% transition formula correction) that it estimates is necessary to maintain budget neutrality in 1992. In addition, although there is no requirement for budget neutrality in the years subsequent to 1992, the 16% reduction will continue every year thereafter. By 1996 and thereafter, when the payment schedule is fully implemented, the cut will constitute an enormous reduction in Medicare payment levels and the Medicare budget.

Whereas there are numerous sections of the NPRM in which HCFA attempts to assess congressional intent and concludes that the statutory language is sufficiently ambiguous to allow for various HCFA interpretations, no such analysis of Congress' wishes is reflected in this section. In reforming Medicare's physician payment system, Congress clearly intended to increase patient access to primary care services, improve the availability of physicians in rural areas, and moderate losses for procedures and urban areas in order to maintain patient access. In sharp contrast to this intention, HCFA's regulatory impact analysis demonstrates that its proposed 16% conversion factor reduction, if enacted, would nullify projected payment increases for primary care physicians and rural states (see attached tables based on pages 25852-54 of the NPRM). For example, whereas Medicare payment increases in the absence of the 16% reduction would average 16% for internists and 37% for family physicians, the proposed conversion factor reduction results in a projected 3% ***decrease*** in payments for internists and only a 15% increase for family physicians (p. 25852). Likewise, the proposed reduction would deepen payment cuts for surgical specialties. Proposed cuts of 20% for general surgeons, 35% for ophthalmologists, and 31% for thoracic surgeons, particularly following several years of "overpriced procedure" reductions, could bring Medicare payments down to, or even below, Medicaid levels, with serious consequences for elderly and disabled patients' access to care.

The AMA's Proposed Solution

To reverse this proposed conversion factor reduction prior to the Final Rule, the AMA will seek:

- a congressional directive that HCFA use no "behavioral" offset -- if a behavioral is to be allowed, the AMA will seek a legislative mandate that HCFA utilize the CBO assumptions that volume will also be reduced where payments increase, which would reduce the offset to about 1% rather than 3%;

- clarification that OBRA 89 neither requires nor allows HCFA to cut payments because the 1992 transition might not be budget neutral -- if a transition formula correction *is* allowed, the AMA will seek a requirement that any such adjustment is applied to the historical payment basis only, not to the conversion factor; and

- elimination of the tripling effect of applying all adjustments to the conversion factor.

Concerns have been raised that such a solution would be difficult to implement because of the "pay-as-you-go" budget rules, which would require that alternate budget savings be found to replace the savings projected to result from loading all of the budget neutrality adjustments onto the conversion factor. Addressing this point in a June 10 hearing before the PPRC, James S. Todd, MD, AMA Executive Vice President, stated that, although the AMA would prefer administrative and legislative approaches that would not trigger budgetary concerns, physicians should not be penalized under these "pay-as-you-go" rules as a result of a misinterpretation by HCFA of congressional intent. Doctor Todd testified that the AMA "will not allow a faulty automatic pilot to drive payment reform onto the shoals of disaster."

The Relative Value Scale

The new payment schedule is to be based on an RBRVS comprised of three components reflecting the physician work involved in the service, practice expenses, and professional liability insurance (PLI) expenses. Addendum B of the Notice (pp. 25863-965) lists RVUs for each of these components for 4,149 coded services that account for about 85% of Medicare expenditures. Because RVUs for the approximately 3,000 remaining coded services will be published for the first time in the Final Rule, the RVUs will be published as "interim values" and there will be an opportunity for public comment before they are finalized.

Physician Work Component RVUs

The physician work component of the payment schedule is based on the Harvard RBRVS study. Phase I of this study provided RBRVS estimates for services provided by 18 medical and surgical specialties and subspecialties. Phase II included expansion of the RBRVS to 15 additional specialties and subspecialties, restudy of four Phase I specialties, and methodological refinements. A principal goal of Phase III, which is currently underway, is use of a small group process to replace the method of extrapolating RVU estimates from services directly surveyed by the researchers to those that were not surveyed. Results from Phase I only were reflected in HCFA's Model Payment Schedule. Addendum B of the NPRM reflects the Phase II results, as well as some initial Phase III results, with RVUs for nearly all of the remaining codes expected to be provided to HCFA by June 30, 1991. (In the Model Payment Schedule, HCFA had indicated that it was considering using the results of an Abt Associates study of relative values for thoracic surgeons instead of the Harvard study, but the NPRM contains no mention of this alternative.) **The AMA will be working closely with the Federation to ensure that HCFA corrects and refines proposed work values as needed.**

Integrating Radiology and Anesthesiology

On January 1, 1989, as required by OBRA 87, a separate payment schedule for radiologist services was implemented based on an RVS developed by the American College of Radiology (ACR). OBRA 89 directed HCFA to use the existing radiology payment schedule in developing the RVUs for these services, but to rescale this payment schedule to link radiology services to equivalent nonradiology physician services in the overall RBRVS. The NPRM proposes a two-step process for rescaling the radiology RVS:

(1) Standardize the existing radiology RVS by dividing each current radiology RVU by the comparable Harvard RVU; and

(2) Place all values on the Harvard scale by multiplying by the mean ratio from Step (1) of 0.41.

Similarly, on March 1, 1989, Medicare adopted a uniform relative value guide (RVG) for physician anesthesia services. Under the RVG, each of the approximately 250 anesthesia codes is assigned a base unit value. Time units for the service (minutes required to provide the service divided by 15 for services that the physician personally provides and divided by 30 for "medically directed" services) are added to the base units, and the sum is multiplied by a conversion factor.

To integrate the anesthesia RVG into the new Medicare payment schedule, HCFA is proposing to eliminate the time units and use the *average* time for each service and its value in the RVG to develop the physician work RVUs for each anesthesia service. Physician work values for the 19 anesthesia services included in the Harvard RBRVS are in turn being used to rescale the work RVUs based on the RVG and place anesthesia services on the same scale as other physician services. Practice expense RVUs will be calculated by multiplying the national average allowed charge for each procedure by the anesthesia specialty practice expense percentage of 23.2% (see below). **Because of the unique characteristics of anesthesia care, the AMA supports continued use of actual rather than average time.**

Practice and PLI Expense Component RVUs

In OBRA 89, Congress directed that the practice expense component of the RBRVS was to be based on 1991 average Medicare allowed charges. HCFA will estimate these 1991 charges using data on 1989 charges updated according to changes in payment rules between 1989 and 1991. Using practice and PLI data from a 1989 AMA survey of office-based physicians, the average percentage of each specialty's revenues that is devoted to practice and PLI expenses will be computed, and these ratios will then be applied to the services provided by each specialty to obtain the practice cost and PLI RVUs for each service. The AMA data were supplemented by data obtained from national medical specialty societies, other professional associations, and the Medical Group Management Association.

For services provided by more than one specialty, weighted average practice cost ratios will be computed reflecting the relative frequency with which each specialty provides the service. An exception to this rule is proposed for emergency department visits, however, because HCFA does not have information on the proportion of these services that are provided by emergency physicians. The NPRM therefore proposes to compute the practice expense RVUs for emergency department visits as if they were provided entirely by emergency physicians, whose practice expense percentage is 30%, "because we believe it better represents the lower practice expenses likely to be incurred when physicians perform these services in emergency departments" (p. 25813).

The OBRA 89 practice expense method was not designed, however, to reflect the actual practice costs that physicians face for each service that they provide; it was designed to *cover* their overall practice expenses. Because physicians in nearly all specialties provide emergency department services, a more appropriate approach would be to compute the weighted average for all of the specialties for which data are available, or to use the average ratio across all physicians, as HCFA is doing in other cases where no other data are available.

Geographic Practice Cost Indices

Under the new system, nationally standardized Medicare payment amounts will be established, and these payments will be adjusted for geographic cost differences. These geographic adjustments are to be determined by three GPCIs, reflecting variations in each of the three components of the relative value: practice expenses, one-quarter of the geographic difference in the costs of physicians' own time (the physician work GPCI), and PLI costs. Payments in each locality are to be calculated by:

- multiplying the practice expense RVUs by the locality's practice expense GPCI,
- multiplying the physician work RVUs by the physician work GPCI,
- multiplying the PLI RVUs by the PLI GPCI;

- summing the three products; and

- multiplying the total adjusted RVUs by the conversion factor.

Addendum A of the NPRM (p. 25862) provides instructions for applying the figures in the NPRM's Addenda to this formula to compute payments in each locality.

Table 1 of Addendum C in the NPRM (pp. 25966-71) presents the GPCIs for each of the 240 Medicare localities. Table 2 provides statewide GPCIs. The GPCIs for each component were jointly developed by the Urban Institute and the Center for Health Economics Research, with the national weights for each physician resource (e.g., physician work, employee wages, office rents, medical equipment and supplies, and PLI) obtained from the 1987 AMA annual survey of medical practice. **For the Final Rule, these weights should be recomputed to reflect more current AMA data.**

There have been few changes to the GPCIs between the Model Payment Schedule and the NPRM. The PLI GPCI has been changed, however, to reflect the costs of $1 million/$3 million coverage rather than the $100,000/$300,000 coverage used in the Model Payment Schedule, and to reflect mandatory patient compensation fund requirements in Kansas, Pennsylvania, and Wisconsin. HCFA also states its intention to revise the GPCIs in 1995 to incorporate data from the 1990 Census, consistent with the congressional mandate for GPCI updates at least every three years, and to provide a notice and public comment period for any proposed changes.

The AMA supports regular updates in the GPCIs as data become available, but also believes that efforts should be made to replace some of the proxies being used in the current GPCIs with data on geographic differences in the actual resource costs that physicians face. For example, the current practice expense GPCI relies on apartment rent data to serve as a proxy for commercial rents. At a minimum, the AMA supports data collection efforts sufficient to *validate* use of such proxies.

Payment Localities

There are currently 240 Medicare localities, ranging in size from entire states to several counties, metropolitan statistical areas (MSAs), and individual counties. Through a contract with the Urban Institute, HCFA is studying the current locality boundaries and may recommend new locality configurations. Congress also directed the PPRC to study the locality boundaries. In its 1991 Annual Report to Congress, the Commission recommended that most states change to a single statewide locality. States with high intrastate cost variation would have up to five localities defined by the population size of their metropolitan areas. If Congress adopts the PPRC's recommendation, the total number of localities would be more than halved.

In the NPRM, HCFA does not propose new locality definitions, but does propose criteria for states wishing to change to a statewide locality. HCFA will allow conversion to statewide localities if "overwhelming support from the physician community for the change can be demonstrated" (p. 25833). Changes would be effective January 1, 1992. The statewide GPCIs are provided in Addendum C to assist physicians in evaluating the impact on their Medicare payments of changing to

a statewide locality. After January, 1992, when the initial payment schedule areas are established, the carriers will not be able to change them on their own. Any subsequent changes will be made by HCFA and announced in the *Federal Register*.

The AMA had generally supported the PPRC's approach to redefining payment localities. The Association will be giving careful consideration to HCFA's recommended approach, recognizing that HCFA's internal analysis of this issue has not yet been completed.

Coding

As part of the standardization of Medicare policies that will take place under physician payment reform, OBRA 89 requires HCFA to establish a uniform procedure coding system for physician services. Activities related to this coding requirement have largely focused on improving coding of visits and consultations, and HCFA is also required to report to Congress by July 1, 1991, on the desirability of including time as a factor in establishing visit codes.

Coding of physician services under Medicare is based on the AMA's Current Procedural Terminology (CPT). Services defined as medical visits and consultations currently account for about one-third of Medicare expenditures for physician services. The AMA's CPT Editorial Panel has developed proposed new codes for visits and consultations to improve the uniformity of coding for these services and to improve the appropriateness of the codes for use in a payment schedule based on an RBRVS. In developing the new codes, the Editorial Panel carefully considered the recommendations of a consensus panel that had been jointly convened by the PPRC and the AMA, as well as findings from Phase II of the Harvard RBRVS study.

In January, 1991, HCFA and the AMA jointly initiated a pilot test of the new visit codes. The pilot test included a reliability test, designed to determine whether different physicians would bill for the same services using the same codes, and a field test, to supplement the reliability study and to determine how well the new codes work for coding actual patient visits. HCFA has included the proposed new CPT visit codes and their definitions in Addendum E of the NPRM (pp. 25974-78). **At the June 10 PPRC hearing, Doctor Todd expressed the AMA's sentiments regarding HCFA's adoption of the CPT proposal, stating that "We are certainly gratified that HCFA worked so closely and effectively with the CPT Editorial Panel on visit code reform . . ."**

The NPRM's discussion of practice expense component RVUs also focuses on these new visit codes. Since there will be no average allowed charges upon which to base the practice expense RVUs for the new codes, HCFA is proposing to compute what the total practice expense RVUs would be for the old codes and to allocate these RVUs across the new codes in proportion to each service's physician work RVUs. For example, if a particular office visit accounts for 24% of total new patient office visit physician work RVUs, then this visit would be assigned 24% of the practice expense RVUs for current new patient office visits.

In order to determine the budgetary impact of the new visit codes, it was necessary for HCFA to be able to cross reference the old and new coding for the same service. This process is termed a "crosswalk." The NPRM contains the crosswalk between the old and new codes that HCFA developed solely in order to calculate the proposed conversion factor for the payment schedule, but these assumptions are subject to change prior to finalization of the new codes, as are the practice expense and PLI RVUs for the new codes, which are included in Addendum B of the NPRM.

Finally, HCFA also developed a special transition method for the new codes, described in the NPRM, to enable computation of the "adjusted historical payment basis" and transition payment amounts in each locality.

Updating the RBRVS

Organized medicine is also featured prominently in the NPRM's discussion of future development of RVUs for new and revised CPT codes. **The AMA is currently working with the national medical specialty societies to develop a structured process through which physicians' organizations would make an annual recommendation to HCFA on assignment of physician work RVUs to new and revised CPT codes that could be implemented simultaneously with the revisions in CPT.** HCFA indicates in the NPRM that the AMA/Specialty Society recommendation (after any adjustments by HCFA) would be published in the *Federal Register* each year as "interim" RVUs, with an opportunity for public comment. HCFA also appropriately indicates that this process would not be the exclusive means for recommending new or revised RVUs, and that specialty societies and other groups could make recommendations directly.

Global Surgical Packages

The January 8, 1991, *Federal Register* contained HCFA's initial proposals for national standardization of global surgery policy under physician payment reform. Key features of the proposed policy were exclusion of the initial patient evaluation from the global package, inclusion of all pre-operative visits and some re-operations for complications following surgery, and inclusion of post-operative care for 90 days. In its comments on the proposed policy, the AMA urged:

- that separate payments be made for visits by *surgeons* to stabilize patients prior to surgery;
- that HCFA work closely with the American College of Surgeons and other specialty societies to identify intra-operative services for inclusion in the global package;
- that re-operations not be included in the package; and
- that the global concept not be applied to minor surgeries and endoscopic procedures.

Responding to these and other comments, the global surgery policy proposed in the NPRM states that surgeons may bill separately for visits to stabilize seriously ill patients prior to surgery if "documentation justifying the need for the surgeon's service is submitted" (p. 25830), and *excludes* re-operations from the global surgical package. **The AMA will continue to oppose HCFA's proposed policy that separate documentation be required to obtain payment for a visit on the same day as an endoscopic procedure or minor surgery, and that global packages be developed for these services that include all post-operative care for 30 days.**

Site of Service Differentials

Proposed differentials in payment by site of service are intended to reflect variations in the practice and PLI expenses that physicians face depending on whether a service is provided in the physician's office or in the outpatient department or other site, and to provide incentives for physicians to

perform procedures in the most appropriate setting. **The AMA has long opposed the arbitrary site of service differential under Medicare's current payment system that limits payment for physician services provided in a hospital outpatient setting to 60% of the prevailing charge.** Although the NPRM proposes to maintain a site of service differential for services that are performed at least 50% of the time in office settings, HCFA concluded, based on an analysis of 1989 AMA data, that a more appropriate limit would be a 50% reduction in the *practice expense RVUs* for the service. Since practice expenses account for about 41% of total revenues on average, *this change in policy will increase the Medicare payment for these services to an average of 79% of the payment schedule rather than 60% of the prevailing charge.*

Payment for Technical Components of Services

The NPRM identifies several types of services for which it will be necessary to develop RVUs for the total service and for separate professional and technical components of the service, for example, diagnostic tests in which a technician may perform the test and the physician's service is limited to interpretation of the result. The NPRM proposes three criteria for defining services for which the technical and professional components will be separably billable:

- the service is diagnostic as opposed to therapeutic in nature;
- the physician's professional service is separable from the technical component of the test; and
- physicians have traditionally separated the professional and technical components of the service for billing purposes (p. 25837).

For services fitting these criteria, the professional component RVUs and the "global" service RVUs (professional plus technical component) would be the Harvard physician work RVUs and practice and PLI RVUs, developed in the same manner as for other physician services. The technical component RVUs would be based on the difference between the global service RVUs and the professional component-only RVUs. Separate rules are proposed for the technical vs. professional components of radiology, pathology, and selected other services. The NPRM also states that HCFA does not consider these methods appropriate for long term use, and that it will gather needed cost data over the next several years in order to revise its proposed methodology.

In this section of the NPRM, HCFA also discusses payment for electrocardiograms (EKGs). OBRA 90 prohibits Medicare payment for interpretation of EKGs that are performed in conjunction with a visit or consultation. To reflect the physician work involved in EKG interpretations, HCFA is proposing to add some fraction of the 17 physician work RVUs for an EKG interpretation to the RVUs for each visit code, based on the historical frequency of EKGs associated with each of three visit types: office visits, hospital visits, and consultations. *The statutory removal of payment for EKG interpretation from Medicare expenditures for purposes of calculating the budget neutral conversion factor, however, will still reduce the conversion factor for all physician services.*

Moreover, the NPRM contains several examples of situations in which no payment would be made to the physician who interpreted the EKG, and which demonstrate the absurdity of this statute:

- "An EKG is ordered for a hospital inpatient by a surgeon for a patient scheduled for surgery. The EKG is interpreted by a cardiologist who does not see the patient. The EKG is considered

to have been ordered in conjunction with the visit to the surgeon and is therefore not separately payable" (p. 25839).

- "A patient is brought to a hospital emergency room with chest pains. The ER physician orders an EKG. . . . the interpretation is not separately payable . . ." (p. 25839).

In both of these cases, physicians are expected to provide services for which they will receive no compensation from Medicare. **The AMA is continuing to seek repeal of this provision.**

Elimination of "Comparability," "Inherent Reasonableness," and "Multiple Patient" vs "Single Patient" Nursing Home Visit Payments

Against strong physician opposition, onerous rules and regulations too numerous to inventory here have been promulgated under Medicare's current payment system. **In a major step towards a more rational payment system, the NPRM states that two of these rules, "comparability" and "inherent reasonableness," will be eliminated under Medicare physician payment reform.** Comparability is a statutory provision that "reasonable charge payments must not be higher than the carriers' private business payments to their own policyholder and subscribers for comparable services under comparable circumstances" (p. 25845). Inherent reasonableness refers to establishment of "special reasonable charge limits for physicians' services when Medicare prevailing charges are found to be "grossly excessive" or "grossly deficient"" (p. 25846). Payments under the new schedule will not be subject to either of these rules.

In addition, in the section on payment modifiers, the NPRM states that the modifiers currently used to identify visits to patients in nursing homes are being eliminated. Current policy limits payment for routine visits to multiple patients to the payment for a follow-up office visit, and limits payment for a visit to a single patient to the payment for a follow-up home visit. Payment schedule amounts will reflect the physician work involved in providing the service. **This proposal appears consistent with longstanding AMA policy.**

Payment for Nonphysicians

In addition to MDs and DOs, Medicare's statutory definition of a "physician" includes optometrists, dentists, oral and maxillofacial surgeons, podiatrists, and chiropractors. For services of these "limited license practitioners" that are also provided by physicians and covered by Medicare, payments will be made according to the full amount of the new Medicare physician payment schedule. For the seven categories of professionals defined by Medicare statute as "nonphysician practitioners" (i.e., physical/occupational therapists, physician assistants, nurse practitioners, certified registered nurse anesthetists, nurse midwives, clinical psychologists, and clinical social workers), coverage and payment rules vary considerably under the current payment system according to factors such as the amount of medical direction, the site of service, and the circumstances under which the service is provided. The NPRM provides detailed new payment rules for nonphysicians.

The AMA has long held that non-MD/DO providers should not be considered physicians by Medicare. The AMA also believes that the Medicare RBRVS developed for MD/DOs should not be applied to non-MD/DO providers.

Conclusion

This report reflects the AMA's current thinking on the key points raised in the NPRM, and provides an initial framework for the Association's formal comments to HCFA. The Association is continuing to work closely with the Federation in preparing its comments on the proposed rule, and is sponsoring several meetings, including a special Forum on Medicare Physician Payment Reform at the 1991 Annual Meeting of the House of Delegates, to facilitate discussion of the issues raised in the NPRM. Although the AMA is pleased with many aspects of the proposed policies, such as HCFA's decision to exclude re-operations from global surgical packages and its adoption of the CPT Editorial Panel's approach to visit code refinements, the Association is vigorously pursuing all legislative and policy options for eliminating the proposed conversion factor reductions, and will work with the Federation on other issues of concern.

TABLE 1

MEDICARE PHYSICIAN PAYMENT SCHEDULE

Projected Changes in Payments Per Service Relative to 1991: Specialty*

Specialty	YEAR 1 (1992) 16% Conversion Factor Reduction in NPRM	YEAR 1 (1992) Full Conversion Factor	YEAR 5 (1996) 16% Conversion Factor Reduction in NPRM	YEAR 5 (1996) Full Conversion Factor
All physician specialties	-3	0	-16	0
Family practice	13	16	15	37
General practice	14	18	14	36
Cardiology	-5	-3	-17	-1
Dermatology	-2	0	-15	1
Internal medicine	0	2	-3	16
Gastroenterology	-7	-4	-25	-10
Nephrology	-4	-1	-15	1
Neurology	-4	-1	-9	8
Psychiatry	-9	-7	-5	13
Pulmonary	-4	-1	-8	9
Urology	-4	-2	-15	1
Radiology	-6	-3	-32	-19
Anesthesiology	-8	-5	-35	-22
Pathology	-6	-4	-30	-17
General Surgery	-5	-2	-20	-5
Neurosurgery	-6	-4	-25	-10
Ophthalmology	-8	-6	-35	-22
Orthopedic Surgery	-6	-4	-19	-3
Otolaryngology	2	5	-4	-14
Plastic surgery	-6	-3	-17	-1
Thoracic surgery	-7	-5	-31	-18
Clinics	-1	2	-11	7
Optometry	13	16	12	33
Chiropractic	-8	-6	-14	3
Podiatry	5	8	16	39

*Source: United States. Federal Register, Part III. Department of Health and Human Services. Health Care Financing Administration, 42 CFR Parts 405 and 415: Medicare Program; Fee Schedule for Physicians' Services; Proposed Rule. Wednesday, June 5, 1991; 56(108):25852.

TABLE 2

MEDICARE PHYSICIAN PAYMENT SCHEDULE

Projected Changes in Payments Per Service Relative to 1991: States*

State	YEAR 1 (1992)		YEAR 5 (1996)	
	16% Conversion Factor Reduction in NPRM	Full Conversion Factor	16% Conversion Factor Reduction in NPRM	Full Conversion Factor
All states	-3	0	-16	0
Alabama	-3	0	-16	1
Alaska	-7	-4	-23	-7
Arizona	-7	-4	-21	-5
Arkansas	-1	2	-16	1
California	-6	-4	-21	-6
Colorado	2	5	-3	16
Connecticut	-5	-2	-16	0
Delaware	-1	2	-14	3
District of Columbia	-4	-2	-15	1
Florida	-7	-5	-25	-10
Georgia	-2	1	-16	0
Hawaii	-9	-6	-22	-7
Idaho	2	4	-6	12
Illinois	-2	1	-14	2
Indiana	-1	2	-12	5
Iowa	1	4	-4	15
Kansas	0	3	-13	4
Kentucky	0	3	-11	6
Louisiana	-3	0	-17	-1
Maine	0	3	-11	7
Maryland	-5	-2	-19	-3
Massachusetts	-3	0	-13	4
Michigan	0	3	-6	12
Minnesota	4	6	-6	13
Mississippi	2	5	-2	17

State	YEAR 1 (1992) 16% Conversion Factor Reduction in NPRM	YEAR 1 (1992) Full Conversion Factor	YEAR 5 (1996) 16% Conversion Factor Reduction in NPRM	YEAR 5 (1996) Full Conversion Factor
Missouri	0	3	-10	8
Montana	-1	2	-13	4
Nebraska	-3	0	-10	8
Nevada	-7	-5	-25	-10
New Hampshire	2	5	-5	13
New Jersey	-1	1	-13	4
New Mexico	-3	0	-19	-3
New York	-2	1	-13	4
North Carolina	0	2	-14	3
North Dakota	-2	1	-15	2
Ohio	-2	0	-16	1
Oklahoma	-6	-3	-14	3
Oregon	-2	0	-13	4
Pennsylvania	-2	0	-14	3
Rhode Island	0	3	-10	8
South Carolina	1	4	-8	10
South Dakota	1	4	-10	7
Tennessee	1	4	-13	5
Texas	-3	0	-21	-5
Utah	1	4	-6	12
Vermont	1	4	-10	7
Virginia	0	3	-9	9
Washington	-2	1	-12	5
West Virginia	-2	0	-17	-1
Wisconsin	-1	1	-12	6
Wyoming	2	5	-4	15

*Source: United States. Federal Register, Part III. Department of Health and Human Services. Health Care Financing Administration, 42 CFR Parts 405 and 415: Medicare Program; Fee Schedule for Physicians' Services; Proposed Rule. Wednesday, June 5, 1991; 56(108):25853-25854.

Determining the Impact of the New Medicare Payment System on Individual Physician Practices

With the Health Care Financing Administration's (HCFA) June 5, 1991 publication of the Notice of Proposed Rulemaking (NPRM) on the new Medicare physician payment schedule, physicians now will be better equipped to start determining the potential impact that the new Medicare physician payment system will have on their practices. Building on HCFA's September 1990 "model fee schedule," the NPRM includes updated estimates on the three components of the resource-based relative value scale (RBRVS)--physician work, practice costs, and professional liability insurance costs; updated geographic practice cost indexes (GPCIs); HCFA's proposed policy approaches on visit code refinements, global surgical services, and site of service differentials; and HCFA's current estimate of the 1992 "budget neutral" conversion factor.

As it has done throughout the course of the development of the RBRVS, the American Medical Association (AMA) will continue to provide accurate and timely information on the new system to physicians and their respective organizations. Accordingly, the AMA has prepared a series of worksheets to assist physicians in estimating the impact of the new payment system. These worksheets, when used in conjunction with data published in the June 1991 NPRM, will allow physicians to more accurately calculate practice revenue estimates than they have been able to do in the past. Nevertheless, because the payment schedule components and policy recommendations in the NPRM are proposed, any projected outcomes from the use of these worksheets are subject to change. Prior to using these worksheets, therefore, the following factors and limitations should be closely noted:

- Physicians who have practices with a large Medicare patient-mix and/or a high percentage of Medicare revenues will face the greatest potential change.

- The mix and volume of, and assignment rate for, the services and procedures provided to Medicare patients, and the geographic location of the physician practice, will be major factors determining the impact of the new payment system.

- The NPRM contains relative value units (RVUs) for only 4,149 codes. Although the 5,757 RVUs included in the NPRM (some codes have both professional and technical components) represent approximately 85 percent of Medicare dollars, many codes have not been assigned RVUs. In addition, HCFA notes that "there will be no opportunity for comment on many of the [Harvard] Phase III values before the final rule is published. Therefore, we will consider the relative values included in the [October 1991] final rule to be interim values and we will request public comment on these relative values."

- The NPRM contains major revisions in codes for office/outpatient visits for new and established visits, initial and subsequent hospital visits, and initial and subsequent consultations that were developed by the AMA's CPT Editorial Panel. These proposed revisions, however, are subject to change. The Editorial Panel will meet in July regarding final changes to these codes, which will be sent to the Federation in late August or early September.

- Revisions in many of the other visit codes (e.g., home medical services, emergency department services, preventive medicine) are also under consideration. As discussed above, the CPT Editorial Panel will be finalizing these codes in July.

- Although there is a "crosswalk" in the NPRM, physicians will need to create their own "crosswalk" from the current to proposed visit and consultation codes in order to estimate their 1992 volume. Likewise, physicians will need to closely consider the impact of HCFA's proposed global surgical package policy on their 1992 visit code volume.

- In estimating the volume of their most frequently provided services and procedures, physicians should use either their 1990 volume or their 1991 volume for the first six months of 1991. Adjustments will need to be made, of course, for any anticipated volume changes in 1992.

- In estimating the assignment rate for their most frequently provided services and procedures, "nonparticipating" physicians should use either their 1990 assignment rate or their assignment rate for the first six months of 1991. Adjustments will need to be made, of course, for any anticipated changes in assignment rates for 1992.

- Prior to establishing 1992 payment levels, prevailing charges in each geographic payment locality will be "adjusted" in a manner that eliminates specialty differentials and customary charge profiles. This adjusted historical payment basis (AHPB) will be the weighted average of all the allowed charges in each payment locality during 1991. Because Medicare carriers will be calculating the AHPB for each service and procedure in each locality, it is not yet possible to include these amounts in the worksheet calculations. As a result, we are recommending that physicians use their 1991 prevailing charge level as a proxy for the AHPB in the worksheet calculations.

- HCFA has proposed special transition rules for radiology services that would provide a more "gradual" transition. Refer to the NPRM for further information.

- The initial "budget neutral" conversion factor contained in the NPRM reflects a severe 16% reduction. This reduction means that many projected payment levels are much lower than those reflected in HCFA's earlier "model fee schedule." Payments for individual services that would occur if this reduction is eliminated prior to the October 1991 final rule can be estimated, however, by multiplying the proposed payments in the NPRM by 1.19.

- HCFA has proposed a 1992 payment update of 2.2%, which reflects a statutory reduction from the Medicare Economic Index (MEI) of 0.4% and HCFA's estimate that 1990-1991 expenditure growth exceeded the 1990 Medicare Volume Performance Standard (MVPS) by 1.5%. The AMA has called for a 1992 payment update equal to the full MEI of 4.1% due to the imprecision in the MVPS.

Copies of the June 1991 NPRM, as published in the *Federal Register*, may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325 for $1.50. When ordering, specify the date of issue (June 5, 1991) and enclose a check or money order payable to the Superintendent of Documents. Visa and MasterCard orders also can be placed by calling (202) 783-3238 or faxing to (202) 275-6802.

The AMA welcomes comments on the use of these worksheets which were developed following publication of the NPRM on June 5, 1991. Please forward any suggestions for future revisions to *Robert D. Otten, Department of Health Care Financing and Organization, American Medical Association, 515 North State Street, Chicago, Illinois 60610.*

INSTRUCTIONS FOR WORKSHEET 1A
("Participating" Physicians)

Calculating 1991 Medicare Physician Payment Levels for Most Frequently Provided Services and Procedures

Step 1: Make as many copies of Worksheet 1A as neeeded for your personal use.

Step 2: Identify the most frequent services and procedures that you provide to Medicare patients by entering each CPT code (including a modifier as appropriate) and short descriptor in Columns A and B respectively.

Step 3: In Column C, enter your 1991 Medicare payment level (i.e., Medicare allowed amount including the 20% copayment).

Step 4: Repeat Step 3 to calculate the 1991 Medicare payment level for each service and procedure that you provide most frequently to Medicare patients.

WORKSHEET 1A
("PARTICIPATING" PHYSICIANS)

CALCULATING 1991 MEDICARE PHYSICIAN PAYMENT LEVELS FOR MOST FREQUENTLY PROVIDED SERVICES AND PROCEDURES

A	B	C
CPT-4 Code	Short Descriptor	1991 Payment Level (Allowed Amount)

INSTRUCTIONS FOR WORKSHEET 1B
("Nonparticipating" Physicians)

Calculating 1991 Medicare Physician Payment Levels for Most Frequently Provided Services and Procedures

Step 1: Make as many copies of Worksheet 1B as needed for your personal use.

Step 2: Identify the most frequent services and procedures that you provide to Medicare patients by entering each CPT code (including a modifier as appropriate) and short descriptor in Columns A and B respectively.

Step 3: In Column C, enter your 1991 Medicare allowed amount in the first box and your 1991 limiting charge in the second box.

Step 4: In Column D, estimate your assignment rate for each service and procedure by entering the appropriate percent in each box that corresponds to the allowed amount (assigned) and limiting charge (unassigned). The combined percent for each service and procedure should equal 1.00 (e.g., 0.70 for the allowed amount [percent assigned] plus 0.30 for the limiting charge [percent unassigned]).

Step 5: Multiply the allowed amount in the first box of Column C by the corresponding percent in Column D and enter the product in the first box in Column E.

Step 6: Multiply the limiting charge in the second box of Column C by the corresponding percent in Column D and enter the product in the second box in Column E.

Step 7: In Column E, sum the amounts in the first two boxes to arrive at your average 1991 Medicare payment level.

Step 8: Repeat Steps 3-7 to calculate the average 1991 Medicare payment level for each service and procedure that you provide most frequently to Medicare patients.

WORKSHEET 1B
("NONPARTICIPATING" PHYSICIANS)

CALCULATING 1991 MEDICARE PHYSICIAN PAYMENT LEVELS FOR MOST FREQUENTLY PROVIDED SERVICES AND PROCEDURES

A	B	C	D	E
CPT-4 Code	Short Descriptor	1991 Payment Level	Percent	Average Payment Level
		Allowed Amount =	x	
		Limiting Charge=	x	+
		Allowed Amount =	x	
		Limiting Charge=	x	+
		Allowed Amount =	x	
		Limiting Charge=	x	+
		Allowed Amount =	x	
		Limiting Charge=	x	+
		Allowed Amount =	x	
		Limiting Charge=	x	+
		Allowed Amount =	x	
		Limiting Charge=	x	+
		Allowed Amount =	x	
		Limiting Charge=	x	+
		Allowed Amount =	x	
		Limiting Charge=	x	
		Allowed Amount =	x	
		Limiting Charge=	x	+

INSTRUCTIONS FOR WORKSHEET 2

Calculating New Medicare Physician Payment Levels For Most Frequently Provided Services and Procedures

Step 1: Make as many copies of Worksheet 2 as needed for your personal use.

Step 2: As with Worksheets 1A and 1B, identify the most frequent services and procedures that you provide to Medicare patients by entering each CPT code (including a modifier as appropriate) and short descriptor in Columns A and B respectively. *[Note: Using **Addendum E, CPT Definitions for Visit Codes**, from the June 1991 Notice of Proposed Rulemaking (NPRM) on the Medicare Payment Schedule for Physicians' Services, include the proposed new visit and consultation codes that you anticipate you will use.]*

Step 3: Using **Addendum B, Proposed Relative Value Units for Physician Work, Practice Expense, Malpractice and Total**, from the June 1991 NPRM, find the relative value units (RVUs) for the work, overhead, and professional liability insurance (PLI) components of the Medicare physician payment schedule and enter each RVU in Column C.

Step 4: Using **Addendum C, Table 1, Geographic Practice Cost Indices (GPCIs) by Medicare Carrier Locality**, from the June 1991 NPRM, find the work, overhead, and PLI GPCIs for your payment locality. For each of the three RVUs that you recorded in Column C, enter the three corresponding GPCIs.

Step 5: In Column C, calculate the geographically adjusted RVU for the work, overhead, and PLI components by multiplying each RVU by each GPCI.

Step 6: In the last box of Column C, calculate the total geographically adjusted RVU by summing the three geographically adjusted RVUs.

Step 7: Per the June 1991 NPRM, enter **$26.87** as the conversion factor in Column D.

Step 8: Multiply the total geographically adjusted RVU in Column C by the conversion factor in Column D to arrive at the new Medicare payment level in Column E. *[Note: As previously discussed, the conversion factor contained in the NPRM reflects a severe **16% reduction**. Accordingly, payments for individual services and procedures that would occur if this reduction is eliminated prior to the October 1991 final rule can be estimated by multiplying the new Medicare payment level in Column E by **1.19**.]*

Step 9: Repeat Steps 3-8 to calculate new Medicare physician payment levels for each service and procedure that you provide most frequently to Medicare patients.

WORKSHEET 2

CALCULATING NEW MEDICARE PHYSICIAN PAYMENT LEVELS FOR MOST FREQUENTLY PROVIDED SERVICES AND PROCEDURES

A	B		C	D	E
CPT-4 Code	Short Descriptor		RVU x GPCI = Geographic Adjusted RVU	CF	New Payment Level
		Work	x =		
		Over	x =		
		PLI	x =		
			Total Adj RVU = x		
		Work	x =		
		Over	x =		
		PLI	x =		
			Total Adj RVU = x		
		Work	x =		
		Over	x =		
		PLI	x =		
			Total Adj RVU = x		
		Work	x =		
		Over	x =		
		PLI	x =		
			Total Adj RVU = x		
		Work	x =		
		Over	x =		
		PLI	x =		
			Total Adj RVU = x		

INSTRUCTIONS FOR WORKSHEET 3

Calculating 1992 Medicare Physician Payment Levels for Most Frequently Provided Services and Procedures

Step 1: Make as many copies of Worksheet 3 as needed for your personal use.

Step 2: As with other worksheets, identify the most frequent services and procedures that you provide to Medicare patients by entering each CPT code (including a modifier as appropriate) and short descriptor in Columns A and B respectively.

Step 3: In the first box in Column C, enter your new Medicare payment level as calculated from Column E of Worksheet 2.

[Note: The new visit and consultation codes, as proposed in the June NPRM, will use a modified 1992 transition method that cannot yet be calculated on a service-specific basis. However, it is anticipated that the 1992 payment level for many or most of these services will be paid entirely or almost entirely on the basis of the new payment schedule. Accordingly, for these codes only, skip the remaining steps and enter the new payment level from the first box in Column C as your 1992 Medicare payment level in Column F.]

Step 4: In the second box in Column C, enter your 1991 prevailing charge level from your current Medicare profile.

*[Note: Prior to establishing 1992 payment levels, prevailing charges in each Medicare carrier locality will be "adjusted" in a manner that eliminates specialty differentials and customary charge profiles. This **adjusted historical payment basis (AHPB)** will be the weighted average of all the allowed charges in each carrier locality during 1991. Because Medicare carriers will be calculating the AHPB for each service and procedure in each locality, it is not yet possible to include these amounts in the worksheet calculations. Accordingly, use your 1991 prevailing charge level as a proxy for the AHPB. In using your 1991 prevailing charge levels, however, keep in mind that the AHPB that will be calculated by your carrier will take into account only the average allowed charge for a service in the locality, not an individual physician's or specialty's charges under the old payment system.]*

Step 5: In Column C, subtract your 1991 prevailing charge level from your new Medicare payment level and enter this amount in the third box.

Step 6: In Column D, enter your new Medicare payment level once again (from the first box in Column C).

Step 7: Divide the amount in the third box of Column C by your new Medicare payment level in Column D and enter the resulting percent difference between these two amounts in Column E.

INSTRUCTIONS FOR WORKSHEET 3
(Continued)

Step 8: If the percent difference in Column E is between -15% and 15%, your 1992 payment level for the service or procedure will be paid entirely on the basis of the new payment schedule. In Column F, enter the same amount that you entered in Column D.

If the percent difference in Column E is more than -15%, your 1992 payment level for the service or procedure will be decreased from the AHPB by 15% of the new payment schedule amount. Multiply the new payment level in Column D by 15%. Subtract this amount from the 1991 prevailing charge level that you previously entered in the second box of Column C and enter the total in Column F. *[Note: The 1991 prevailing charge level is being used only as a proxy for the AHPB.]*

If the percent difference in Column E is more than 15%, your 1992 payment level for the service or procedure will be increased from the AHPB by 15% of the new payment schedule amount. Multiply the new payment level in Column D by 15%. Add this amount to the 1991 prevailing charge level that you previously entered in the second box of Column C and enter the total in Column F. *[Note: The 1991 prevailing charge level is being used only as a proxy for the AHPB.]*

Step 9: Repeat Steps 3-8 to calculate the 1992 Medicare payment levels for each service or procedure that you provide most frequently to Medicare patients.

WORKSHEET 3

CALCULATING 1992 MEDICARE PHYSICIAN PAYMENT LEVELS FOR MOST FREQUENTLY PROVIDED SERVICES AND PROCEDURES

A	B	C	D	E	F
CPT-4 Code	Short Descriptor	New Payment Level - 1991 Prevailing	New Payment Level	Percent Diff	1992 Payment Level
	New Payment Level				
	1991 Prevailing	-			
	New Payment Level				
	1991 Prevailing	-			
	New Payment Level				
	1991 Prevailing	-			
	New Payment Level				
	1991 Prevailing	-			
	New Payment Level				
	1991 Prevailing	-			
	New Payment Level				
	1991 Prevailing	-			

INSTRUCTIONS FOR WORKSHEET 4A

Calculating Final 1992 Medicare Physician Payment Levels for Most Frequently Provided Services and Procedures

Step 1: Make as many copies of Worksheet 4A as needed for your personal use.

Step 2: As with other worksheets, identify the most frequent services and procedures that you provide to Medicare patients by entering each CPT code (including a modifier as appropriate) and short descriptor in Columns A and B respectively.

Step 3: In Column C, enter your 1992 payment level as calculated from Column F of Worksheet 3.

Step 4: Multiply your 1992 payment level in Column C by **1.022**. Enter your 1992 updated payment level in Column D. *[Note: This calculation is based on HCFA's proposed 1992 payment update of 2.2% which reflects a statutory reduction from the Medicare Economic Index (MEI) of 0.4% and HCFA's estimate that 1990-1991 expenditure growth exceeded the 1990 Medicare Volume Performance Standard (MVPS) by 1.5%. The AMA has called for a 1992 payment update equal to the full MEI of 4.1% due to the imprecision in the MVPS.]*

Step 5: "Participating" Physicians - In Column E, enter the same amount that you entered in Column D. This is your estimated final 1992 payment level.

"Nonparticipating" Physicians - Nonparticipating physicians will continue to be paid at 95% of the payment schedule amount for participating physicians. Accordingly, in applying either *Scenario #1 or Scenario #2*, you will multiply the amount in Column D by 0.95.

Scenario #1: Nonparticipating physicians with 1991 limiting charges that are less than or equal to 120% of their prevailing charge levels in 1991 will be limited to charging the same percentage above the 1992 nonparticipating physicians' payment levels as they charged above their 1991 prevailing charge levels. Where this situation applies to you, multiply this percentage by 95% of the amount in Column D and enter the product in Column E. This is your estimated 1992 limiting charge.

Example: 1992 Payment Level = $76.65
% 1991 Limiting Charge is Above 1991 Prevailing Charge = 17%
1.17 x [0.95x $76.65] =
1.17 x $72.82 = $85.20
1992 Limiting Charge = $85.20

INSTRUCTIONS FOR WORKSHEET 4A
(Continued)

Scenario #2: Nonparticipating physicians with 1991 limiting charges that are greater than 120% of their 1991 prevailing charge levels will be limited to charging 120% of the 1992 nonparticipating physicians' payment levels. Where this situation applies to you, multiply 120% by 95% of the amount in Column D and enter the product in Column E. This is your estimated 1992 limiting charge.

Example: 1992 Payment Level = $76.65
% 1991 Limiting Charge is Above 1991 Prevailing Charge = 22%
1.20 x [0.95 x $76.65] =
1.20 x $72.82 = $87.38
1992 Limiting Charge = $87.38

Step 6: Repeat Steps 3-5 to calculate your estimated final 1992 payment levels and limiting charges for each service or procedure that you provide most frequently to Medicare patients.

Step 7: Nonparticipating Physicians - Complete Worksheet 4B to determine the impact that varying assignment rates will have on your final 1992 payment levels.

WORKSHEET 4A

CALCULATING FINAL 1992 MEDICARE PHYSICIAN PAYMENT LEVELS FOR MOST FREQUENTLY PROVIDED SERVICES AND PROCEDURES

A	B	C	D	E
CPT-4 Code	Short Descriptor	1992 Payment Level	Updated Payment Level	Final 1992 Payment Level

INSTRUCTIONS FOR WORKSHEET 4B
("Nonparticipating" Physicians)

Adjusting Final 1992 Medicare Physician Payment Levels for Most Frequently Provided Services and Procedures for "Nonparticipating" Physicians

Step 1: Make as many copies of Worksheet 4B as needed for your personal use.

Step 2: As with other worksheets, identify the most frequent services and procedures that you provide to Medicare patients by entering each CPT code (including a modifier as appropriate) and short descriptor in Columns A and B respectively.

Step 3: In the first box of Column C, enter your updated 1992 payment level from Column D of Worksheet 4A.

Step 4: In the second box of Column C, enter your 1992 limiting charge from Column E of Worksheet 4B.

Step 5: In Column D, estimate your 1992 assignment rate for each service and procedure by entering the appropriate percent in each box that corresponds to the updated 1992 payment level (assigned) and 1992 limiting charge (unassigned). The combined percent for each service and procedure should equal 1.00 (e.g., 0.70 for the updated 1992 allowed level [percent assigned] plus 0.30 for the 1992 limiting charge [percent unassigned]). *[Note: If appropriate, enter your current assignment rate from Column D of Worksheet 1B.]*

Step 6: Multiply the updated 1992 payment level in the first box of Column C by the corresponding percent in Column D and enter the product in the first box in Column E.

Step 7: Multiply the 1992 limiting charge in the second box of Column C by the corresponding percent in Column D and enter the product in the second box in Column E.

Step 8: In Column E, sum the amounts in the first two boxes to arrive at your average final 1992 Medicare payment level.

Step 9: Repeat Steps 3-8 to calculate the average final 1992 Medicare payment level for each service and procedure that you provide most frequently to Medicare patients.

WORKSHEET 4B

ADJUSTING FINAL 1992 MEDICARE PHYSICIAN PAYMENT LEVELS FOR MOST FREQUENTLY PROVIDED SERVICES AND PROCEDURES FOR "NONPARTICIPATING" PHYSICIANS

A	B	C	D	E
CPT-4 Code	Short Descriptor	1992 Payment Level	Percent	Avg. Final Payment Level
		1992 Payment =	x	
		Limiting Charge=	x	+
		1992 Payment =	x	
		Limiting Charge=	x	+
		1992 Payment =	x	
		Limiting Charge=	x	+
		1992 Payment =	x	
		Limiting Charge=	x	+
		1992 Payment =	x	
		Limiting Charge=	x	+
		1992 Payment =	x	
		Limiting Charge=	x	+
		1992 Payment =	x	
		Limiting Charge=	x	+
		1992 Payment =	x	
		Limiting Charge=	x	
		1992 Payment =	x	
		Limiting Charge=	x	+

INSTRUCTIONS FOR WORKSHEET 5

Calculating the Potential 1991-1992 Change in Medicare Revenues for Most Frequently Provided Visits and Consultations

Step 1: Make as many copies of Worksheet 5 as needed for your personal use.

Step 2: As discussed in the June 1991 NPRM, revisions in CPT codes for visits and consultations have been proposed by the AMA's CPT Editorial Panel for the following:

- *90000-90020 (Office and Other Outpatient Medical Services - New Patient);*
- *90030-90080 (Office and Other Outpatient Medical Services - Established Patient);*
- *90200-90225 (Hospital Inpatient Medical Services New and Established Patient - Initial Hospital Care);*
- *90240-90292 (Hospital Inpatient Medical Services New and Established Patient - Subsequent Hospital Care);*
- *90600-90630 (Initial Consultation); and*
- *90640-90643 (Follow-Up Consultation)*

In Column A, enter any of these codes for those visits and consultations that you provide frequently to Medicare patients. You should have already entered these codes in either Column A of Worksheet 1A or Column A of Worksheet 1B.

Step 3: In Column B, enter your 1991 Medicare payment level from either Column C of Worksheet 1A or Column E of Worksheet 1B.

Step 4: Estimate the number of times you will provide the visit or consultation during 1991 and enter this amount in Column C. *[Note: Estimate your volume per visit or consultation by using either your 1990 volume or your 1991 volume for the first six months of 1991.]*

Step 5: Multiply the 1991 Medicare payment level in Column B by your estimated 1991 volume in Column C and enter your estimated 1991 revenue per visit or consultation in Column D.

Step 6: In Column E, enter the proposed new visit and consultation codes that you anticipate you will use from Column A of Worksheet 2. (If you did not include these codes in Worksheet 2, see **Addendum E, CPT Definitions for Visit Codes,** from the June 1991 NPRM.)

Step 7: "Participating" Physicians - In Column F, enter your 1992 Medicare payment level from Column E of Worksheet 4A. (If you did not calculate your 1992 Medicare payment levels for the proposed new visits and consultations, see Worksheets 2, 3, and 4A.)

"Nonparticipating" Physicians - In Column F, enter your 1992 Medicare payment level from Column E of Worksheet 4B. (If you did not calculate your 1992 Medicare payment levels for the proposed new visits and consultations, see Worksheets 2, 3, 4A, and 4B.)

Step 8: Use Appendexes A-C to estimate your 1992 volume for the proposed new visits and consultations.

INSTRUCTIONS FOR WORKSHEET 5
(Continued)

Step 9: From Appendix C, enter your estimated 1992 volume for the new visit or consultation code in Column G.

Step 10: Multiply the 1992 Medicare payment level in Column F by your estimated 1992 volume in Column G and enter your estimated 1992 revenue per proposed new visit or consultation in Column H.

Step 11: Repeat Steps 3-10 to calculate your 1991 and 1992 Medicare revenues for the visits and consultations that you provide most frequently to Medicare patients.

Step 12: Sum the amounts in Column D to determine your 1991 Medicare revenues for visits and consultations and enter the total in Box I.

Step 13: Sum the amounts in Column H to determine your 1992 Medicare revenues for the proposed new visits and consultations and enter the total in Box J.

Step 14: In Box K, compare your 1991 revenues with your 1992 revenues to determine the 1991-1992 change in Medicare revenues for the visits and consultations that you provide most frequently to Medicare patients.

WORKSHEET 5

CALCULATING THE POTENTIAL 1991-1992 CHANGE IN MEDICARE REVENUES FOR MOST FREQUENTLY PROVIDED VISITS AND CONSULTATIONS

A	B	C	D	E	F	G	H
Current Visit Code	1991 Payment Level	1991 Volume	1991 Revenue	New Visit Code	1992 Payment Level	1992 Volume	1992 Revenue

I	1991 Revenues		J	1992 Revenues	
K	Total 1991-92 Change in Revenue for Visits/Consultations				

INSTRUCTIONS FOR WORKSHEET 6

Calculating the Potential 1991-1992 Change in Medicare Revenues for Most Frequently Provided Procedures and Other Services

Step 1: Make as many copies of Worksheet 6 as needed for your personal use.

Step 2: As with other worksheets, identify the most frequent services and procedures that you provide to Medicare patients by entering each CPT code (including a modifier as appropriate) and short descriptor in Columns A and B respectively. *[Note: exclude those visits and consultations that you included in Worksheet 5.]*

Step 3: In the first box in Column C, enter your 1991 Medicare payment level as calculated from either Column C of Worksheet 1A or Column E of Worksheet 1B.

Step 4: In the second box in Column C, enter your 1992 Medicare payment level as calculated from Column E of either Worksheet 4A ("participating" physicians) or 4B ("nonparticipating" physicians).

Step 5: In Column D, estimate the number of times you will provide the service or procedure and enter this number in both boxes. *[Note: Estimate your volume per service or procedure by using either your 1990 volume or your 1991 volume for the first six months or 1991. Adjustments will need to be made, of course, for any anticipated volume changes in 1992.]*

Step 6: Multiply the 1991 Medicare payment level in the first box of Column C by your estimated volume for that service or procedure in Column D and enter your estimated 1991 Medicare revenue per service or procedure in the first box in Column E.

Step 7: Multiply the 1992 Medicare payment level in the second box Column C by your estimated volume for that service or procedure in Column D and enter your estimated 1992 Medicare revenue per service or procedure in the second box in Column E.

Step 8: In Column E, compare your estimated 1991 revenue per service or procedure with your estimated 1992 Medicare revenue per service or procedure to determine the change in Medicare revenue for that service or procedure.

Step 9: Repeat Steps 3-8 to calculate the 1991-1992 change in Medicare revenue for each service and procedure that you provide most frequently to Medicare patients.

Step 10: Sum the amounts in Column E to determine your 1991-1992 change in Medicare revenues for the **procedures and other services** that you provide most frequently to Medicare patients and enter the total in Box F.

Step 11: Identify your 1991-1992 change in Medicare revenues for the **visits and consultations** that you provide most frequently to Medicare patients from Box K of Worksheet F and enter this amount in Box G.

Step 12: In Box H, combine the amounts in Boxes F and G to determine the potential impact that the new Medicare physician payment system may have on your total Medicare practice revenues in 1992.

WORKSHEET 6

CALCULATING THE POTENTIAL 1991-1992 CHANGE IN MEDICARE REVENUES FOR MOST FREQUENTLY PROVIDED PROCEDURES AND OTHER SERVICES

A	B	C	D	E
CPT-4 Code	Short Descriptor	Medicare Payment Level	1991 Volume	Change in Revenue
		1991 Level = x		
		1992 Level = x		
		1991 Level = x		
		1992 Level = x		
		1991 Level = x		
		1992 Level = x		
		1991 Level = x		
		1992 Level = x		
		1991 Level = x		
		1992 Level = x		
		1991 Level = x		
		1992 Level = x		
		1991 Level = x		
		1992 Level = x		
		1991 Level = x		
		1992 Level = x		
F	1991-1992 Change in Revenue for Procedures/Other Services			
G	1991-1992 Change in Revenue for Visits/Consultations			
H	Total 1991-1992 Change in Medicare Practice Revenues			

INSTRUCTIONS FOR APPENDIX A

Log Sheet for Creating a "Crosswalk" from Current Codes to Proposed New Visit and Consultation Codes

[Note: The June 1991 NPRM contains proposed revisions in CPT codes for office and other outpatient medical services for new and established patients (90000-90080), initial and subsequent hospital inpatient medical services for new and established patients (90200-90292) and initial and follow-up consultations (90600-90643). These proposed revisions are contained in ***Addendum E, CPT Definitions for Visit Codes,*** *of the June 1991 NPRM.*

These proposed revisions are based on the work of the AMA's CPT Editorial Panel. In developing the revised codes, the CPT Editorial Panel carefully considered the recommendations of the Physician Payment Review Commission and findings from Phase II of the Harvard RBRVS study. In January 1991, the AMA joined with HCFA to pilot test these proposed new codes. As noted in the NPRM, HCFA has not yet completed its analysis of the pilot test which will be completed prior to the publishing of the October 1991 final rule.

With respect to the use of the proposed new codes in these worksheets, several limitations apply. First, the CPT Editorial Panel already has completed further work on these codes and will be making final changes in July. Second, although not included in the NPRM, the Editorial Panel has worked on revising other visit codes such as those for home medical services, emergency department services, and preventive medicine. Final changes for these codes will also be completed in July. Third, HCFA's proposed global surgery package policy should be closely reviewed relative to 1992 visit code volume estimates. Finally, because all of these codes have not yet been finalized, <u>any volume estimates and/or practice revenue projections resulting from the use of these worksheets should be considered preliminary.</u>

To estimate the volume of the proposed new visit and consultation codes, it will be necessary for physicians and their office staff to create a "crosswalk" from the current codes to the proposed new codes. Do not use the "crosswalk" in the NPRM, which was developed for other purposes. Completion of Appendices A-C will allow you to <u>estimate</u> your 1992 volume for these codes, which in turn, will allow you to <u>estimate</u> your 1991-1992 change in practice revenue for visits and consultations (see Worksheet 5).]

<u>Step 1</u>: Make as may copies of Appendix A as needed for your personal use.

<u>Step 2</u>: For an appropriate period of time (e.g. one-two weeks), keep a log for the visits and consultations that you provide to Medicare patients. Record the date and patient identification information (e.g., name, patient ID) for each encounter.

<u>Step 3</u>: Record the current code for each visit and consultation.

<u>Step 4</u>: Carefully using **Addendum E, CPT Definitions for Visit Codes,** from the June 1991 NPRM, recode the visits and consultations with what you believe is the most appropriate new code.

<u>Step 5</u>: Repeat Steps 2-4 to complete a log for the visits and consultations that you provide most frequently to Medicare patients.

APPENDIX A

LOG SHEET FOR CREATING A "CROSSWALK" FROM CURRENT CODES TO PROPOSED NEW VISIT AND CONSULTATION CODES

Date	Patient ID	Current Code	New Code

INSTRUCTIONS FOR APPENDIX B

Creating a "Crosswalk" from Current Codes to Proposed New Visit and Consultation Codes

Step 1: Make as many copies of Appendix B as needed for your personal use.

Step 2: Using **Addendum E, CPT Definitions for Visit Codes,** from the June 1991 NPRM, complete a copy of Appendix B for each group of codes (i.e., Office and Other Outpatient Medical Services). *[Note: See attached example.]*

Step 3: Using the data gathered from your log sheets (Appendix A), enter the number of times that you replaced a current code with a new code (e.g., 90010 replaced by ON007 or ON007).

Step 4: Calculate the percent of times that each new code replaced a current code. The combined percent should total 1.00.

Step 5: Repeat Steps 3-4 for each group of visit and consultation codes.

[EXAMPLE]

APPENDIX B

CREATING A "CROSSWALK" FROM CURRENT CODES TO PROPOSED NEW VISIT AND CONSULTATION CODES

Current CPT Codes	New CPT Visit and Consultation Codes *Number of Times Current Code Replaced by New Code*					
	ON005	ON007	ON009	ON0011	ON0013	Total
90020	3	3				6
Percent	.50	.50				1.00
90010		4	3			10
Percent		.70	.30			1.00
90015			3	6		10
Percent			.60	.70		1.00
90010				4	2	6
Percent				.67	.33	1.00
90020				4	3	4
Percent				.25	.75	1.00
Percent						

APPENDIX B

CREATING A "CROSSWALK" FROM CURRENT CODES TO PROPOSED NEW VISIT AND CONSULTATION CODES

Current CPT Codes	New CPT Visit and Consultation Codes *Number of Times Current Code Replaced by New Code*					
						Total
Percent						
Percent						
Percent						
Percent						
Percent						
Percent						

INSTRUCTIONS FOR APPENDIX C

Estimating 1992 Volume for Proposed New Visit and Consultation Codes

Step 1: Make as many copies of Appendix C as needed for your personal use.

Step 2: For each group of visit and consultation codes, enter the same current and new codes that you entered in Appendix B. *[Note: See attached example.]*

Step 3: From Column C of Worksheet 5, enter your estimated 1991 volume for each current visit or consultation.

Step 4: From Appendix B, enter the percent of times that each new code replaced a current code in the top row for each code.

Step 5: Multiply each percent by your 1991 volume for each current code to arrive at your estimated 1992 volume for each new code ("crosswalked" from the current codes).

Step 6: Sum the volume numbers in each column to determine your estimated 1992 volume for each new visit or consultation.

Step 7: Repeat Steps 3-6 for each group of visit and consultation codes.

Step 8: Enter your estimated 1992 volume for each new visit or consultation in Column G of Worksheet 5.

[EXAMPLE]

APPENDIX C

ESTIMATING 1992 VOLUME FOR PROPOSED NEW VISIT AND CONSULTATION CODES

Current CPT Codes	New CPT Visit and Consultation Codes *Percent of Times Current Code Replaced by New Code*					
	1991 Volume	ON005	ON007	ON009	ON0011	ON0013
90000	16	.50	.50			
1992 Volume		8	8			
90010	30		.70	.30		
1992 Volume			21	9		
90015	40			.60	.40	
1992 Volume				24	16	
90010	40				.67	.33
1992 Volume					12	6
90020	12				.25	.75
1992 Volume					3	9
1992 Volume						
Total for New Code		8	29	33	31	15

APPENDIX C

ESTIMATING 1992 VOLUME FOR PROPOSED NEW VISIT AND CONSULTATION CODES

Current CPT Codes	New CPT Visit and Consultation Codes *Percent of Times Current Code Replaced by New Code*					
	1991 Volume					
1992 Volume						
1992 Volume						
1992 Volume						
1992 Volume						
1992 Volume						
1992 Volume						
Total for New Code						

THE PHYSICIAN PAYMENT REVIEW COMMISSION 1991 ANNUAL REPORT TO CONGRESS: *AN AMA REVIEW*

In its 1991 Annual Report to Congress (released on April 1, 1991), the Physician Payment Review Commission (PPRC) recommends a number of policies for consideration by the Congress and the Health Care Financing Administration (HCFA) in implementing Medicare physician payment reform, scheduled to begin on January 1, 1992. The report also contains chapters on several other policy issues, including Medicaid physician payment and rural health. *This review summarizes the Commission's recommendations and relevant analyses and responds to them from an AMA policy perspective.*

The AMA provided comments to the PPRC on many of the issues addressed in the report and on draft chapters of the report and recommendations in testimony before the Commission on December 5, 1990, and in a letter of February 20, 1991. Some of these comments were reflected in the final 1991 report. A list of the Commission's 1991 recommendations is attached to this review.

KEY RECOMMENDATIONS

Conversion Factor

To meet the statutory mandate for budget neutrality in 1992, the Commission is recommending a prospective 1% reduction in 1992 Medicare payment levels as a "behavioral offset" for anticipated expenditure increases in that year. It further recommends that any difference between this assumption and actual experience be addressed through the Medicare Volume Performance Standard (MVPS).

This behavioral offset reflects the PPRC's view that payment changes alter the volume of services. HCFA has traditionally used a 50% offset, which assumes that expenditures increase by 50¢ for every $1 payment reduction because volume increases offset payment cuts. The PPRC estimates that this volume assumption would require a 3.3% reduction in 1992 payments. Alternatively, the Congressional Budget Office (CBO) predicts that, in addition to an expenditure *increase* of 50¢ for every $1 payment *reduction*, there will be a 35¢ expenditure *decrease* for every $1 payment *increase* under physician payment reform. The PPRC estimates that the CBO assumption would require a 1.2% reduction in 1992 payments. Its recommendation reflects essentially a "rounding off" of the CBO assumption.

The Commission views this 1% reduction as a "modest" behavioral offset, particularly in light of the 3.3% reduction projected for a 50% offset assumption. Because the Commission has interpreted the statutory provision as requiring that any adjustments to maintain budget neutrality in 1992 be made to the *conversion factor* rather than the overall *payment*, and because it estimates that the conversion factor will determine only one-third of 1992 expenditures due to the phase-in process, the PPRC believes that *a 1% reduction in 1992 payments will require a 3% reduction in the 1992 conversion factor* to maintain budget neutrality. During the 1993-96 transition period the conversion factor for the payment schedule will determine an increasing proportion of Medicare payments, so that *a 3% reduction in the 1992 conversion factor will mean that 1996 payments will be 3% lower than they otherwise would have been.*

The AMA is strongly opposed to use of any behavioral offset to reduce the 1992 conversion factor. In contrast to its *recommendation*, the report's discussion on this issue rightly points out that, with 1992 changes following nearly a decade of "fee freezes, low fee updates, and reductions in fees for overvalued procedures . . . [t]he volume response at the end of such a period might be quite different from other times" (p. 124). Given the substantial uncertainty regarding the existence,

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American Medical Association, Division of Health Programs, Department of Health Care Financing and Organization, May 1991.

magnitude, and direction of potential changes in utilization, even the 1% reduction is inappropriate. Moreover, Congress has already established the MVPS as a means of adjusting Medicare payments in response to inappropriate increases in the volume of services *if they occur*. Finally, if a 1% payment reduction in 1992 will in fact require a 3% conversion factor reduction, *the Commission is actually recommending that hundreds of millions of dollars be removed from the Medicare budget for physician services in 1993 and every year thereafter in response to volume increases that it predicts will occur in a single year.*

In addressing the issue of budget neutrality in 1992, the Commission also considered recommending a "correction" for the projected impact of the transition. Current projections are that, because of the transition, aggregate payment increases and decreases in 1992 will not exactly offset one another and expenditures will be 2% higher than an otherwise budget neutral level. If all of this adjustment were loaded onto the *conversion factor*, as discussed above, the Commission estimates that *a 2% reduction in 1992 payments to "correct" for the transition would require a 6% reduction in the conversion factor.* Added to the 3% reduction for a behavioral offset, the Commission is thus estimating a *9% reduction in the conversion factor* as a result of its recommendation. It considered recommending that the entire payment be adjusted in order to eliminate this tripling effect of a transition correction, but decided not to make such a recommendation because of concerns that CBO had already "scored" the budget savings from the transition and that alternate savings would have to be found to replace the scored savings. **The AMA is evaluating policy options for mitigating these threats to the conversion factor and will be pursuing them vigorously.**

In its analysis of these issues, the PPRC also discusses the impact of Medicare budget cuts *since 1988* on the 1992 conversion factor. It estimates that, although changes in relative payments will be similar to earlier projections, actual inflation-adjusted payment levels will be lower than they otherwise would have been in the absence of these budget cuts.

Practice Expenses

The Commission has developed a method of estimating the practice expense component of the payment schedule that it believes is more appropriate for use in a "resource-based" schedule than the method specified in the Omnibus Budget Reconciliation Act of 1989 (OBRA 89). *It is recommending that the OBRA 89 method, based on historical charges, be replaced with a resource-based method, and will refine its own method based on discussion with interested parties and additional analyses.*

Although the OBRA 89 method reflects relative practice expenses imprecisely, it does capture important dimensions of current practice cost experience. **The AMA disagrees, therefore, with the Commission's characterization of this method as "not resource-based."** The basis for the OBRA 89 method is the ratio of *actual* specialty practice expenses to the average gross income of physicians in the specialty — essentially the proportion of *resources* allocated to practice expenses by physicians in a given specialty — whereas the Commission's method allocates the majority of practice expenses on the basis of relative physician *work*. **Thus, even though it is related to current Medicare charge data, the OBRA 89 method provides better assurance than does the PPRC method that the Medicare payment schedule will *cover* physicians' actual practice expenses.**

In addition, comparisons of projected payments under the two methods suggest that the PPRC method could cause potentially untenable payment dislocations. In fact, projected payment reductions are similar to those that would have occurred under the original (Phase I) Harvard resource-based relative value scale (RBRVS) practice cost method, which many reviewers, including the PPRC, believed to be lacking in face validity.

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Geographic Adjustments and Payment Localities

Based on an analysis of variations in the prices that physicians face across localities, the PPRC is recommending that the current Medicare payment localities be replaced with statewide payment localities, except for 17 states with high intrastate price variation. In these states, the Commission recommends that up to five payment areas be defined, corresponding to metropolitan statistical area (MSA) population categories (more than 3 million, 1-3 million, 250,000-1 million, fewer than 250,000, and nonmetropolitan). Such a change would reduce the total number of localities from the current 237 to 94.

In this chapter of the report, the Commission also presented its analysis of the current geographic practice cost indices (GPCIs). Although the review is generally positive, the chapter suggests that the current proxies for commercial rents (i.e., residential rent data) be replaced with actual data on geographic variation in this price input, and that the GPCIs be updated regularly as current data on prices become available.

The Commission's analysis of and recommendation for new payment localities is consistent with AMA policy that localities need not be defined in a uniform fashion across the country, but rather should reflect actual patterns of cost variation while minimizing administrative complexity. The Association also supports the PPRC's call for expanded collection of data on commercial rents; however, a *recommendation* for broader data collection of medical practice input prices for *all GPCI components* would better address any weaknesses in the GPCIs, as well as provide a basis for validating the indices. Consistent with the OBRA 90 mandate for GPCI updates at least every three years, the AMA also supports the call for regular GPCI updates as data are available, including 1990 Census data.

Coding for Evaluation and Management Services

In its letter of February 20 commenting on draft recommendations and chapters, the AMA expressed a number of concerns about the PPRC's proposed recommendation on coding reform. *Although the Commission's final language did temper that of the draft, the final recommendation on coding for evaluation and management services (i.e., office and hospital visits and consultations) advocates adoption of a new coding system developed by the PPRC for these services and states concern that "the visit coding system currently being pilot-tested by CPT . . . might introduce a degree of complexity beyond what is necessary and might compromise the goals of coding reform" (p. 149).*

The AMA continues to be disturbed by the Commission's approach. The Association's Current Procedural Terminology (CPT) Editorial Panel has proceeded in a serious and thorough fashion to revise visit and consultation codes to ensure their appropriatness for use in a payment system based on an RBRVS. This effort has involved careful consideration of the recommendations of a joint AMA/PPRC Consensus Panel and extensive consultation with the Harvard RBRVS study team and PPRC and HCFA staff. Moreover, no meaningful evidence is provided to support the PPRC's assertion that the CPT proposal is unnecessarily complex and unworkable, and it seems illogical and demeaning to suggest that physicians would be "confused" and would require "coping strategies" to use the new codes (p. 176).

Conversely, the results of the recent pilot test of the CPT Editorial Panel's proposed coding system provide substantial evidence that the codes can be easily and reliably used by physicians. Field study results encompassing coding for 5,843 office visits provided by 173 physicians in over 20 specialties demonstrated that:

- physicians could use the codes to distinguish among clinical encounters;
- the new codes are workable; and
- inclusion of time information in coding may exert a *slight* positive influence on coding reliability.

This pilot test, which also involved a reliability study in which 107 physicians in *each* of five specialties coded 25-30 clinical descriptions, provides a unique and invaluable source of information on how the proposed codes will fare in practice -- information that is not available for any of the proposed alternatives. Based on the pilot test results, the CPT Editorial Panel will finalize the new codes this Spring.

OTHER PAYMENT SCHEDULE ISSUES

Professional Liability Insurance (PLI) Expense: In a recommendation intended to closely parallel its recommendation on the practice expense component of the payment schedule, the Commission expresses its support for basing the PLI component on estimates of the "risk of service," and states that it has developed such a method and that it will be refined based on discussion with interested parties. The AMA agrees with the PPRC's approach to this issue and looks forward to further work on this issue.

Assistants-at-Surgery: The PPRC's recommendations on assistants-at-surgery encompass both the appropropriateness of using assistants and payment for the services of assistants. Rejecting a policy option of expanded use of prior authorization, the Commission recommends that:

- physician profiling with educational feedback be used to improve the appropriateness of use of assistants;

- payments be based on resource costs using findings from the Harvard RBRVS study;

- until these data are available for more services, payments should be established at 20% of the (global) surgical payment, instead of the 16% mandated by OBRA 90; and

- procedures appearing on HCFA's list of those requiring an assistant in less than 5% of cases because the assistance is provided by residents should be removed from the list for which payments for assistants will not be authorized.

It also notes that the "costs of expanding prior authorization . . . appear to outweigh the benefits" (p. 238). The AMA advocated Commission adoption of these recommendations and strongly supports them.

Payment for Non-Physicians: Lacking sufficient "empirical evidence" to guide it in determining whether or not the services of optometrists and podiatrists are the same as those of MDs and DOs when the code used is the same, the Commission recommends that, unless and until such evidence does become available, Medicare payments should continue to be the same as for MDs and DOs. The Commission did express reservations, however, about Medicare's use of the statutory term "physician" to describe these health professionals. For other health professionals whose services are currently paid for by Medicare on a fee-for-service basis, it recommends that payment differentials reflect resource cost differentials between these professionals and physicians, as well as differentials between types of non-physician professionals. The PPRC also recommended that: the 10% "bonus" payments applied to physicians' services in rural and innercity Health Manpower Shortage Areas apply also to non-physicians; that *all* services provided by non-physicians be identified as such on Medicare claim forms and paid accordingly; and that these services be included in the MVPS. The AMA does not agree: that services of optometrists and podiatrists are the same as those of physicians and should be paid the same; that

distinctions *among non-physician professionals* are appropriate in a system that does not incorporate specialty differentials for physicians; nor that services not under the direct control of a physician should be included in the MVPS.

Payment for EKGs: The Commission's recommendation on payment for electrocardiograms (EKGs) responds to physician concern about an OBRA 90 provision that severely limits payments to physicians for EKG interpretations provided during a visit, effectively redefining the visit to include the EKG interpretation without making additional payment for this service. It proposes that payments be restored, but only up to their level under the RBRVS-based payment schedule for both the professional and technical components (e.g., no transition). The AMA shares the PPRC's desire to restore payment for EKG interpretations, but is concerned about its recommendation that this restoration be funded by eliminating the transition period for both the performance and interpretation of EKGs and accelerating the transition for so-called "overpriced" procedures.

MEDICAID, PRIVATE PAYERS, AND OTHER ISSUES

Responding to congressional mandates to study and make recommendations on physician payment under Medicaid (OBRA 89) and to expand its charge to include "options to constrain the costs of health care to employers" (OBRA 90), the Commission's 1991 report includes several chapters on these issues. In addition, it contains chapters on beneficiary issues, rural health, refining relative value estimates for physician work, physician profiling, and professional liability.

The AMA has presented its views on these issues and comments on draft chapters to the Commission, and shares its goals of expanding access to high quality medical care for the indigent and those in rural areas and improving the cost effectiveness of care. Nevertheless, the Association has expressed strong concerns about the Commission's interest in an all-payer physician payment system. Its discussion of this concept fails to articulate why an all-payer system is needed or what major social goals it would advance, and at what cost. The Commission appears to assume that the Medicare payment schedule and policy-making process are directly applicable to private payers. In the AMA's view, it simply does not make sense to compel an entire health care system to adopt changes made in Medicare.

CONCLUSION

The PPRC's 1991 Annual Report to Congress presents its excellent analyses and recommendations on several policy issues related to implementation of Medicare physician payment reform, including new definitions of Medicare payment localities and use of and payment for assistants-at-surgery. Nevertheless, despite modifications to several draft recommendations in response to AMA comments, the Association remains troubled by several of the Commission's recommendations on key issues, such as the 1992 conversion factor, practice expenses, and coding for evaluation and management services. Adoption of the PPRC's recommended behavioral offset, acceptance of its interpretation of the OBRA 89 budget neutrality provisions, and heightened interest in its new method of estimating practice cost relative values could lead to serious underfunding of Medicare physician payments, with adverse consequences for patient access.

In addition to its Annual Report, the PPRC will be reviewing HCFA's recommendations for the 1992 MVPS and conversion factor update. The AMA is exploring avenues for mitigating or eliminating threats to the payment schedule conversion factor. It will continue to strongly oppose attempts to use the OBRA 89 budget neutrality provision as a means of obtaining budget savings, and, in advocating its views on all of these issues before Congress and the Administration, will continue to support adoption of only those policies that serve the best interests of the entire medical profession.

APPENDIX:

1991 RECOMMENDATIONS OF THE PHYSICIAN PAYMENT REVIEW COMMISSION

CONVERSION FACTOR

In order to anticipate volume changes in response to the implementation of the Medicare Fee Schedule in 1992, the Commission recommends a fee reduction of 1 percent. Any difference between this assumption and actual experience should be addressed through the Medicare Volume Performance Standard.

PRACTICE EXPENSES

The Commission continues to support basing the practice expense component of the relative value scale on estimates of resources rather than on historical charges as specified in OBRA89. It has developed and tested the feasibility of a resource-based method and will refine it on the basis of extensive discussion with interested parties and additional analysis.

GEOGRAPHIC ADJUSTMENTS AND PAYMENT LOCALITIES

Current carrier localities should be replaced with statewide fee schedule payment areas except in states with high intrastate price variation. In each of these states up to five payment areas should be defined, corresponding to metropolitan statistical area (MSA) population categories (more than 3 million, 1 to 3 million, 250,000 to 1 million, fewer than 250,000, and nonmetropolitan). Current statewide localities should continue as such. Each MSA that crosses state borders should have a uniform index value and be treated as if it falls entirely within the state that contains the largest share of its population.

CODING FOR EVALUATION AND MANAGEMENT SERVICES

The coding system for visits and consultations should be reformed so that codes can be interpreted uniformly by physicians and payers, understood by patients, and assigned accurate relative values under a resource-based payment system. The Commission believes that the simplest coding system that accomplishes these goals should be adopted. It has developed a model system that meets this criterion. The system uses:

- *twelve classes of codes to distinguish visits that differ in terms of effort or practice costs;*
- *a uniform set of five levels of service (reflecting the complexity of medical decisionmaking, the extent of EM services provided, and typical physician encounter time) to differentiate visits in all classes; and*
- *a special modifier to code for visits with patients who have communication barriers, disabling cognitive or physical impairment, or an unusual need for counseling or coordination of care.*

The Commission is concerned about the visit coding system currently being pilot-tested by CPT because the number, content descriptors, and times in the levels of service differ for each class of visit. The Commission believes that this system might introduce a degree of complexity beyond what is necessary and might compromise the goals of coding reform. The Commission hopes that the pilot test of the CPT coding system results in refinements that meet the needs of a resource-based payment system.

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PROFESSIONAL LIABILITY INSURANCE EXPENSE

The Commission supports basing the malpractice expense component of the relative value scale on estimates of the risk of service. It has developed and tested the feasibility of a risk-of-service method and will be refining it on the basis of extensive discussion with interested parties.

ASSISTANTS-AT-SURGERY

In order to reduce inappropriate utilization of assistants-at-surgery, Medicare should develop profiles on their use. Where significant variations are noted, educational feedback programs that encourage physicians to explore the causes and explanations for such variation should be developed by the Health Care Financing Administration (HCFA) with the assistance of specialty societies, Peer Review Organizations (PRO), and carriers. If inappropriate utilization continues after this intervention, physicians and should be subject to medical audit.

Payments for physicians serving as assistants-at-surgery should reflect the estimates of physician work derived from the Hsiao study. Until relative work values are developed for more procedures, it would be appropriate to pay assistants-at-surgery for all procedures at 20% of the surgical payment under the Medicare Fee Schedule.

In developing its list of those procedures that require an assistant less than 5% of the time (to implement Sec. 4107 of the Omnibus Budget Reconciliation Act of 1990), HCFA may have included procedures that data suggest are done infrequently because the assistance required is often provided by residents in teaching hospitals. HCFA, in consultation with the appropriate specialty societies, should remove such procedures from the list of those for which payment for an assistant has been eliminated.

PAYMENT FOR NON-PHYSICIANS

Podiatrists and optometrists should be paid under the Medicare Fee Schedule, using the same relative values and conversion factors as applied to doctors of medicine and osteopathy.

Nonphysician practitioners whose services are currently billed under the Medicare program on a fee-for-service basis should continue to have payments that differ from those of physicians. Current percentage differentials, however, should be replaced with differentials that reflect differences in physicians' and nonphysicians' resource costs: work, practice expense, and malpractice expense. The value of the work component should be adjusted to reflect differences in investments in education and training between each NPP category and physicians. The components for practice expense and malpractice expense should also be adjusted.

The bonus applied to payments for physician services provided in Health Professional Shortage Area (HPSAs) should also apply at the same percentage rate to payments for NPP services provided in HPSAs.

All services provided by NPPs should be identified as such on the claims forms according to the specific NPP category. Modifiers to the existing Current Procedural Terminology (CPT) codes should be used to achieve this.

When physicians bill for evaluation and management (EM) services provided by their NPP employees, the services should be paid at the NPP level, rather than the physician level. The identification of services provided by NPPs, through the use of a modifier, will facilitate application of the correct payments.

The services of NPPs should be included in the Medicare Volume Performance Standard (MVPS). Because of the linkage of NPP fees to those of physicians, fees for NPP services will automatically be updated through the MVPS process.

PAYMENTS FOR EKGs

The Commission supports the congressional goal of ensuring that the price and utilization of electrocardiograms are appropriate. Bundling EKG interpretation with visits would be inequitable unless visit payment varied by diagnosis or other factors. The Commission plans to examine alternative methods of bundling EKG, laboratory, and procedural services with visits, to determine whether a satisfactory method can be derived. While methods for bundling are being developed and assessed, the Congress should modify OBRA 90 and pay for EKGs separately from visits at the final resource-based price for both the professional and technical components.

To avoid reducing payments for other services by paying for all EKGs (albeit at a lower price), the transition to final fee schedule values should be accelerated for those procedures surveyed for the first time Phase II of the Hsiao study that are considerably overvalued.

To address overutilization of EKGs, Medicare should foster development of practice guidelines for the test, profile physicians' use of EKGs, and provide educational feedback. Physicians who continue to provide the service at rates substantially different from the norm should be subject to medical audit.

OTHER ISSUES

All Medicare carriers should use a standardized Explanation of Medicare Benefits form that provides information to help protect beneficiaries from charges exceeding Medicare limits. The correct allowable maximum charge for the total claim should be calculated for the beneficiary on the EOMB form. The EOMB form should state that the beneficiary is not liable for any amount above this maximum.

Medicare should continue to pay for anesthesia services on the basis of base units and actual time. It should develop a more rigorous definition of anesthesia time and implement procedures to validate the time of anesthesia services. The hospital or surgical center should be responsible for verifying anesthesia times.

The total fee paid for the services provided by an anesthesia care team consisting of an anesthesiologist and a CRNA [certified registered nurse anesthetist] should not exceed the payment made to a solo anesthesiologist for the same service. This recommendation is contingent upon revision of the conversion factor for medically directed CRNA service that was established by OBRA90. The total payment for the anesthesia care team must be allocated between the anesthesiologist and the CRNA in a manner that provides adequate incentives for both professionals to practice in teams.

Anesthesiologists who supervise two residents, or one resident and one CRNA, should be paid on the same basis as when they supervise two CRNAs.

The American Medical Association Perspective on Medicare Physician Payment Reform

A new Medicare payment system for physician services is to begin implementation on January 1, 1992. On June 5, the Health Care Financing Administration (HCFA) published in the Federal Register the Notice of Proposed Rule Making (NPRM) on this *Medicare physician payment reform*, which uses a payment schedule that employs a resource-based relative value scale (RBRVS) reflecting differences in physician resource costs (e.g., physician work, overhead costs, and professional liability insurance) across services. Payments are determined by applying to the RBRVS an annually updated monetary *conversion factor* and *geographic practice cost indices*. There will be a 60-day public comment period for the NPRM, with a Final Rule in October. **As a proposed rule, all elements of the NPRM are subject to change with the Final Rule -- relative values, geographic adjustments, policy proposals, and perhaps most importantly, the conversion factor.**

The NPRM reflects a drastic 16% reduction in the initial "budget neutral" conversion factor for this new system. **This severe reduction is caused by three policy decisions made by HCFA as it has interpreted the relevant legislation.** First, HCFA applies a "volume offset," in which initial payment levels are reduced by 3% to reflect an anticipated 3% volume increase in response to payment reductions under the new schedule. Second, HCFA proposes a 2% payment reduction for the projected expenditure effects of the 1992 transition formula. Third, these two adjustments are applied only to the conversion factor, even though it affects only a portion of 1992 payments (adjusted current payment levels will determine the balance). Due to the resulting "tripling effect", the conversion factor is cut by about 3% to achieve each 1% reduction in overall spending, producing the 16% conversion factor reduction. **This cut means that many projected payment levels are much lower than those in HCFA's 1990 "Model Fee Schedule" and in previous impact simulations.**

The payment reductions in the NPRM are unacceptable. They imperil payment reform. By nullifying projected gains for rural and primary care services, and by deepening cuts, this proposed conversion factor does not reflect Congress' intent. These reductions, if ultimately implemented, will not be the automatic consequence of the payment reform legislation. They will result from specific policy decisions by HCFA, as well as of congressional decisions not to correct them. The AMA is pursuing all legislative and administrative solutions.

Understanding the Impacts of the New Payment System

Impacts on individual physician practices will depend on patient mix, specialty, practice location, current assignment policy and limiting charges, and the proportion of Medicare patients in the practice. Increases or decreases for individual services will result from many factors, including: the RBRVS; the statutory practice cost method and data; and the move to a more standardized payment system (e.g., limits on geographic payment variations, elimination of specialty differentials, and more uniform definitions of global surgical services). Many of these factors may counter each other for the same physician. Finally, the "budget neutral" conversion factor used in the NPRM, which converts relative values into payment levels, and which has been eroded by recent annual budget cuts, will exert a major impact for all services and physicians.

The NPRM presents HCFA's projections of impacts both at the specialty and the state level, detailing changes for both 1992 and 1996 in actual payment levels relative to 1991 (although they do not reflect any eventual payment update for 1992). They present average impacts only, and do not reflect the distribution of gains and losses within specialties or states. They indicate projected impacts given HCFA's proposed conversion factor, as well as the much more favorable impacts that would occur if the 16% conversion factor reduction is reversed. The payments for individual services that would occur in the absence of HCFA's proposed cuts can be estimated by multiplying the payments in the current HCFA schedule by *1.19*. **As in the past, the AMA will develop and disseminate to the Federation its own projections as soon as possible.**

American Medical Association, Division of Health Programs, Department of Health Care Financing and Organization, June 1991

The AMA Perspective

The January 1 start of the transition to this new payment system will culminate nearly a decade of efforts. By the mid-1980s, physicians, patients, and the federal government were all calling for changes in Medicare physician payment. The system was seen as overly complex, arbitrary, and inflationary. From the start, the AMA exercised leadership. This role, in development of the RBRVS and in shaping many of the elements of the eventual payment reform legislation, resulted from three major factors: rising dissatisfaction within the medical profession with the growing complexity and unpredictability of the Medicare physician payment system; what were viewed by many physicians as irrational payment distortions across services and geographic areas; and the recognition that payment reform was inevitable.

In 1988, the AMA adopted the position that an RBRVS payment schedule, adjusted for geographic practice cost differences, was the policy option for Medicare physician payment most appropriate for physicians and their patients, in contrast to proposals for physician DRGs or widespread capitation. AMA support for such a system was critical to the defeat of these alternatives, as well as to the prevention of even more onerous proposed budget cuts than those actually enacted since 1984. The Congress incorporated key elements of AMA policy (e.g., a geographically adjusted RBRVS) in its 1989 payment reform legislation, which the AMA and most of organized medicine supported. Unfortunately, this legislation diverged from other critical elements of AMA policy, most notably by continuing and making more stringent Medicare balance billing limits.

The AMA continues to believe that payment reform will still benefit physicians and their patients. The new system will eventually be simpler and more uniform in operation than the current system, will be implemented through a transition that is intended to minimize disruptions to physicians and their patients and, with an adequate conversion factor, will provide needed relief for rural and primary care services.

A critical factor in the ability of payment reform to achieve this promise, however, is the adequacy of the conversion factor. The conversion factor cuts in the NPRM are not inevitable. They can and must be reversed if payment reform is to have any chance of success. The Association has developed legislative solutions that it is advocating vigorously to the Congress. Success will require an unprecedented grassroots effort, which the AMA will coordinate with the Federation. In addition, the AMA will continue to use the NPRM comment process to pursue administrative remedies. The AMA is optimistic that the payment reform agreement between Congress, physicians, and patients can be restored.

The AMA will evaluate carefully the entire NPRM and provide HCFA with timely comments, relying on a policy base that has been continually refined over the past decade. It will work closely with all elements of organized medicine, including state medical associations and national medical specialty societies.

The AMA also will continue to provide accurate information to physicians and their organizations on the new system. Organized as the *Payment Reform Education Project*, these activities will intensify over the next several months, and will be updated as final regulations are issued and the new system begins. Anticipated efforts include the provision of resource materials to physicians' organizations, direct communications with physicians through appropriate AMA media, and publication of a physicians' guide to the new system.

The AMA immediately sent the NPRM to the entire Federation. Additional copies may be obtained from the Superintendent of Documents, U.S. GPO, Washington, DC 20402-9325 for $1.50. Specify the date of issue (June 5, 1991) and enclose a check or money order payable to the Superintendent of Documents (or enclose a Visa or Master Card number and expiration date). Credit card orders also can be placed by calling (202) 783-3238 or faxing to (202) 275-6802.

June 21, 1991

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Dear :

The undersigned organizations representing a broad spectrum of the medical profession have joined together to ask your help. The new Medicare payment reform provisions of ORBA 1989, published in the FEDERAL REGISTER on June 5th, by the Health Care Financing Administration, represent the most significant change in payment for physicians' services since the inception of Medicare. There are multiple problems affecting these specialties in many ways, but all are agreed that the unexpected reduction in the conversion factor is intolerable. When this reform was passed, Congress intended it to be budget neutral. Congress did not expect it to be used to cut the budget. The medical profession supported efforts to revise physician payments under Medicare because it believed that the present system was not working well, was unpredictable for both patients and doctors, and was often inequitable.

We believe that the medical profession acted responsibly, putting aside special interests and helping to revise a payment system that would be understandable and fair. With the publication of the NPRM, we find that HCFA is proposing to implement a system with severe payment cuts that are less than understandable and certainly not fair. HCFA is proposing a system that will be a budget slashing tool. If finalized as written, the system would result in a devastating 16% reduction in the schedule's expected "conversion factor" -- the dollar amount used to calculate the payment amount for each physician service. In some instances, this would set the Medicare payment for physicians' services below the Medicaid payment level.

Physicians across the country cannot help but feel a sense of betrayal; just as the new system is being put in place, the health care community can only look upon the government's action with cynicism and outrage.

We ask you to call your colleagues on the Ways and Means and Energy and Commerce Committees and urge them to support legislation that would return physician payment reform to the budget neutral basis that Congress originally intended. Attached is a fact sheet outlining our concerns with the implementation and suggesting a remedy for its improvement.

Sincerely,

Aerospace Medical Association
American Academy of Child and Adolescent Psychiatry
American Academy of Dermatology
American Academy of Facial Plastic and Reconstructive Surgery
American Academy of Family Physicians
American Academy of Neurology
American Academy of Ophthalmology
American Academy of Orthopaedic Surgeons
American Academy of Otolaryngic Allergy
American Academy of Otolaryngology - Head and Neck Surgery
American Academy of Pain Medicine
American Academy of Pediatrics
American Academy of Physical Medicine and Rehabilitation
American Association of Clinical Urologists, Inc.
American Association for Thoracic Surgery
American Association of Neurological Surgeons
American College of Cardiology
American College of Chest Physicians
American College of Emergency Physicians
American College of Gastroenterology
American College of Nuclear Physicians
American College of Occupational Medicine
American College of Obstetricians and Gynecologists
American College of Physicians
American College of Preventive Medicine
American College of Rheumatology
American College of Surgeons
American Geriatrics Society
American Group Practice Association
American Gastroenterological Association
American Medical Association
American Orthopaedic Association
American Pediatric Surgical Association
American Psychiatric Association
American Society For Dermatologic Surgery
American Society for Gastrointestinal Endoscopy
American Society of Addiction Medicine
American Society of Anesthesiologists
American Society of Cataract and Refractive Surgery
American Society of Clinical Onocology
American Society of Clinical Pathologists
American Society of Colon and Rectal Surgeons
American Society of Internal Medicine
American Society of Plastic and Reconstructive Surgeons, Inc.
American Thoracic Society
American Urological Association
College of American Pathologists
Contact Lens Association of Ophthalmologists
Joint Council on Allergy and Immunology
National Association of Medical Examiners
Renal Physicians' Association
Society of Nuclear Medicine
Society for Investigative Dermatology
The Society of Thoracic Surgeons
The Triological Society
United States and Canadian Academy of Pathology

MEDICARE PHYSICIAN PAYMENT REFORM
THE CONVERSION FACTOR PROBLEM

Background: The Health Care Financing Administration (HCFA) has proposed a devastating 16% reduction in the conversion factor for the new Medicare physician payment schedule. This 16% cut violates Congressional intent. Congress stipulated that the new payment system should be implemented on a budget neutral basis. Medicine supported payment reform based on Congressional assurances that it would be implemented fairly and would not be used as a budget cutting device. Congress wanted to increase payments for primary care services and services provided in rural areas and to moderate the reduction in payments for certain procedures. If allowed to proceed unchecked, under this proposal projected increases for primary care physicians and all physicians in rural areas will be nullified. Projected reductions for surgical services will be magnified to the point that some physicians will be paid under the Medicare payment schedule at levels below what they receive under Medicaid.

ROOT CAUSES OF THE CONVERSION FACTOR PROBLEM

The proposed 16% reduction in the conversion factor is the result of three factors:

First, is the behavioral offset in which initial payment levels are reduced to reflect anticipated volume increases despite the fact that HCFA-sponsored research has failed to prove this theory. In addition, Congress is already using another device, the Medicare Volume Performance Standard (MVPS) to adjust physician payments for increases in the volume of services.

Second, HCFA proposes adjustments to correct for projected spending levels that are expected to result from the 1992 transition. This result is due in large measure to an "asymmetry" in which changes for services that increase occur more rapidly than reductions scheduled to occur. This provision reflects Congressional intent to speed the increases in payment for primary care services and prevent disruptions in access due to dramatic cuts all at one time.

Third, as a result of ambiguity in the legislative language, HCFA maintains that the above two adjustments must be applied to the conversion factor alone, even though the conversion factor represents only a portion of the total payment amount in 1992. Targetting the conversion factor for all the adjustments causes a tripling effect in which a 1% adjustment to overall payments requires a 3% reduction in the conversion factor.

SOLUTIONS

The above three problems can be addressed by enacting legislative amendments that would:

1. prohibit the use of a behavioral offset
2. correct the transition problem
3. eliminate the tripling effect of applying all adjustments to the conversion factor.

06/27/91 SAMPLE LETTERS ON CONVERSION FACTOR PROBLEM 07/04/91

TO: State, County Societies

FROM: Daniel H. Johnson, Jr.,
Speaker, American Medical Association
House of Delegates

Enclosed are two sample letters prepared by American Medical Association (AMA) staff to guide you in writing to your members of Congress and to the Health Care Financing Administration (HCFA) urging that the conversion factor problem be fixed. (The letter to HCFA, if addressed as recommended, will serve as a formal comment on the regulation. This would not foreclose any additional comments you may wish to submit on other aspects of the proposed regulation.)

I cannot underscore enough how important it is that you WRITE IMMEDIATELY. You must also ask your colleagues to write as well. There is a very short window of opportunity to get action. Early reports indicate that there is Congressional sympathy with the situation. We must capitalize on this sentiment and have it turn into action to correct what we know is a devastating problem.

You can make a difference. You now have the tools. We urgently request that you use them to help all of us.

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SAMPLE LETTER

The Honorable (Name of Legislator)
United States House of Representatives (or U.S. Senate)
Washington DC

Dear Representative (or Senator) -----:

I am a physician practicing in the specialty of ----- in (city OR county and state). Based on the information provided in the June 5 FEDERAL REGISTER notice published by the Health Care Financing Administration, I have calculated the effect of the proposed payment schedule on my practice and I find that I may no longer be able to treat Medicare patients in the same numbers I have in the past. The 16% reduction in the dollar amount used to calculate Medicare payment, if implemented, breaks the promise of Medicare payment reform.

The medical profession supported payment reform based on assurances that it would be implemented in a fair and reasonable manner and not be used as a tool to slash the budget. Contrary to the intent of Congress, by HCFA's own analysis, there is strong evidence that the conversion factor cuts transform the new payment system into a budget cutting device. Physicians throughout the country have good reason to feel betrayed.

I am urgently requesting that you support legislative initiatives to:

* Prohibit HCFA from applying a behavioral offset;

* Prohibit HCFA from reducing the conversion factor to correct for the transition formula; and

* Eliminate the tripling effect of the transition adjustments.

I am deeply concerning that if these changes are not made, there will be a devastating effect on the access to quality health care for our senior citizens.

Sincerely,

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SAMPLE LETTER

Dr. Gail Wilensky
Health Care Financing Administration
Attn: BPD 712-P
Post Office Box 26686
Baltimore MD 21207

Dear Dr. Wilensky:

I am a physician practicing in the specialty of ----- in (city OR county and state). Based on the information provided in HCFA's June 5 FEDERAL REGISTER notice, I have calculated the effect of the proposed payment schedule on my practice and I find that I may no longer be able to treat Medicare patients in the same numbers I have in the past. The 16% reduction in the dollar amount used to calculate the conversion factor, if implemented, breaks the promise of Medicare payment reform.

Congress enacted physician payment reform to bring a sense of fairness, equity and predictability to the Medicare payment system. The intention was that the new system, based on a resource-based relative value scale, would be implemented in a budget neutral fashion and not used as a means of budget reduction. The physician community worked with Congress towards these same objectives.

Physicians now feel betrayed. It appears to us that at every decision point, HCFA decided to use the new payment system as a budget cutting tool. We believe that HCFA should reconsider its decision. I urgently request that you do. Please take the steps necessary to achieve the goals of payment reform and in your final regulation:

* Do not apply a behavioral offset;

* Do not reduce the conversion factor to correct for the transition formula; and

* Eliminate the tripling effect of the transition adjustments.

I am very concerned that if these changes are not made, there will be a devastating effect on the access to quality health care for our senior citizens.

Sincerely,